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TEXTILE BULLETIN

Vol. 56 June 1, 1939 No. ~~8~~ 7

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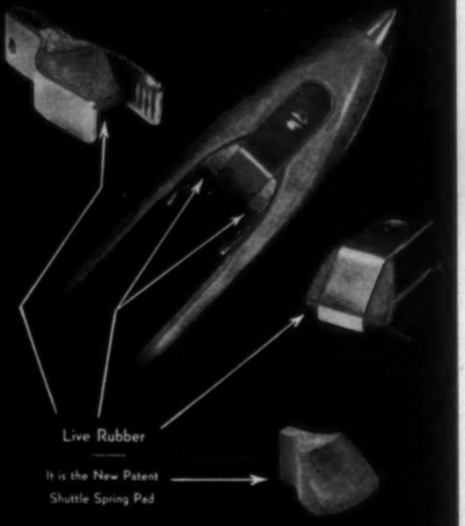

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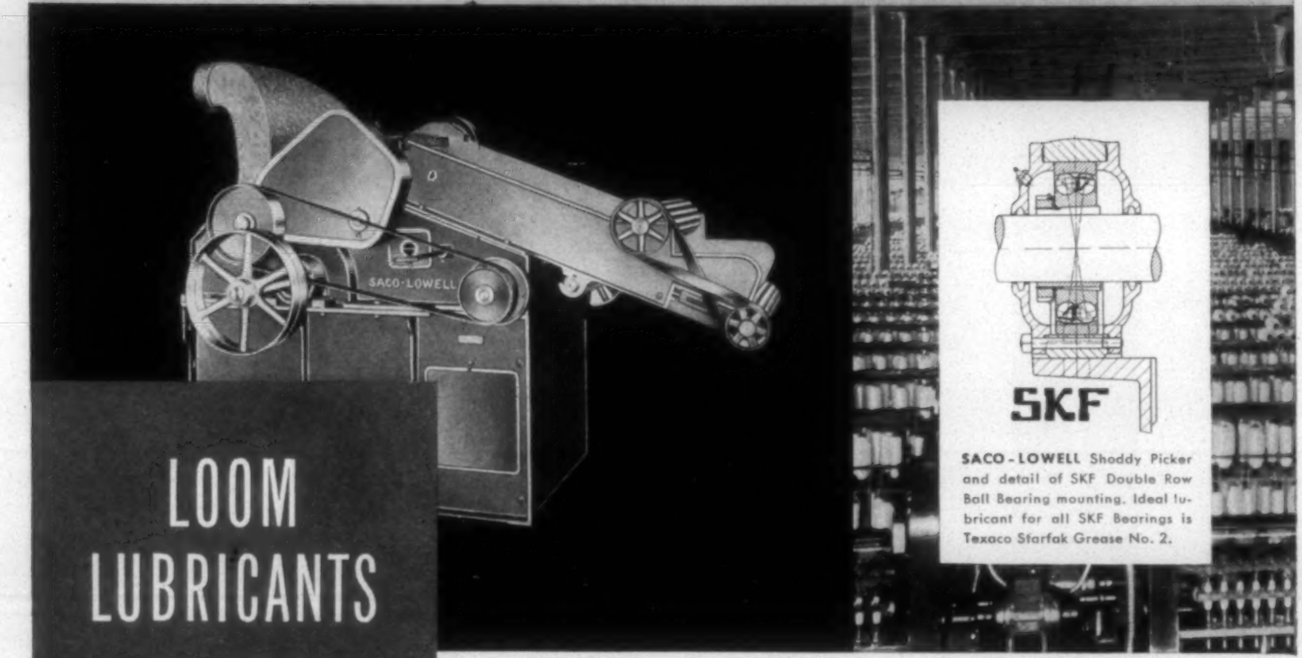

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TEXTILE BULLETIN

MEMBER AUDIT BUREAU OF CIRCULATIONS

Vol. 56 June 1, 1939 No. 7

Industrial Relations—

The Reflection of Management Attitudes*

● **Good Industrial Relations Are By-Products of Good management**

By William Conover

Assistant Director of Industrial Relations, U. S. Steel Corporation

SO many of us tend to consider the problem of industrial relations as separate and apart from the whole job of good management, that it seems appropriate for me, at the outset, to touch upon the meaning of industrial relations as I understand it.

A recent incident illustrates exactly what I mean. I was asked to recommend an industrial relations manager to the head of a well known company. After describing the qualifications, the president summed it all up by saying, "What we want is a man who can guarantee us that we will not have labor trouble."

For twenty-eight years this executive had been concerned about the marketing, production and financial success of his business. Now, for the first time, he was concerned over the prospects of labor trouble. The normal problems of the business and the "labor situation" were two separate problems in his mind; virtually, in two separate worlds. Doing something to promote good labor relations was of interest to him only to the extent that it was necessary to prevent interruption to production. What he wanted was someone to take over the responsibility for labor relations so that he could divest himself of the problem and go about his normal and regular job of running the business. Needless to say, I was unable to recommend a man who would meet such requirements.

If there is any contribution I can make to this gathering, it lies, perhaps, in a brief expansion of the simple principle that industrial relations and good management are one and the same thing. I know of no function, no activity, in industry which we can lay hold of and say, definitely, "This is the personnel function." I know of no program, or programs, of activities which we can superimpose upon an employee body and say, "This is our industrial relations program." Attempts were made, back in the early twenties, to make this artificial separation when paternalism, the personnel specialist, and the social service department were the vogue. In reality, there is very little which must be added to the management structure and programs of a company to assure good industrial relations. There should be no necessity for an elaborate and expensive industrial relations department.

Industrial Relations Are Effected By All Activities of a Company

I have maintained for many years that industrial relations are good or bad according to how well each activity in the whole business operates. Good relationships are an integral part of each job, from president to gang boss, from chief engineer to office boy. In brief, good industrial relations is the result, not of the new things we do, but of the *way* we do all the things we are already doing. Good industrial relations is the result of the *way* we set up our wage structure, the *way* we introduce changes in it, the *way* we relate production decline to layoffs, the *way* we handle cases of discipline, and the *way* we grant raises and make promotions and demotions; nor does the answer lie solely in these matters. It goes deeper into the basic operation of the business. It involves, for example, the care we take to see that the night crew leaves things in proper order so that the day crew doesn't lose time getting started. It reaches into the tool room where workers may be forced to use worn-out tools because the tool room clerk slipped in keeping his stock properly replenished. It depends on how seriously we try to forecast our production requirements so that the sharp changes may be avoided wherever possible, in how much interest we develop in employees on behalf of serving our real boss, the customer; in fact, on how good a sales job we do to bring in the orders, without which there would be no employment, and how stable a financial basis we maintain for the whole enterprise. All these things, and many more, contribute to good or bad industrial relations. The way the whole business is run determines the answer. Good management and good industrial relations are inseparable; they are one and the same thing. If we accept this basic concept, it becomes obvious that proper policy and practice must be an integral part of the whole organization. This becomes a matter of leadership. It is the *way* foremen treat workers in relation to all these matters; the *way* the superintendent treats the foremen and, finally, the *way* a president carries on with his own staff in order that right attitudes and right methods may exist throughout the whole organization. There is no activity and no individual in the whole business who is not affected, if we are to manage so that good industrial relations result. Perhaps you feel that the implications I have outlined are too broad. I think part of our difficulties lie in considerations of industrial relations which are too narrow. As we examine the "way we manage," I am sure we will all agree that the starting point is an examination of our policies. To establish a common basis of understanding, I would like to define a policy as a principle, or fundamental intention, on which we base our plans of action. Certainly, the principles and fundamental intentions of management underlie everything we do, so there is no more basic point from which to start.

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*Presented at Thirty-ninth Annual Convention of the Cotton Manufacturers' Association of Georgia, May 25th.

Wrong Policies and Poor Leadership Cause Labor Unrest

I submit to you, further, that unrest in the working can occur, generally, under but one of two conditions:

(1) When our policies are not right in terms of modern contemporary standards, or

(2) When the leadership inside the company is less effective in administering these policies to the workers than outside forces are in selling contrary policies to them.

This may appear, at first thought, to be an over-simplification of a very major and complex problem, but as we think over everything we do in this whole field, it soon becomes clear that there is no other answer. We can have labor unrest either when our policies are wrong or when they are poorly administered. Now, policy making and policy administration are major functions of management, and as we gradually perfect our management technique, we shall automatically progress toward the solution of our industrial relations problems.

A Policy of Exploitation Is Unsound and Unwise

Let us consider, therefore, this subject of getting our policies right. There is a far-reaching question, so I suggest that we consider it from a broad base. If we had a large sheet of paper hung on this back wall and we drew lines down it to divide it into three vertical columns, I think we might better visualize this matter of policy. This gives us one column for each of our three broad policy considerations. I shall attempt to fill in each column as I see the problem and the choice of policy which American industry should make. At the head of the column, to the right, we would place the heading "*Exploitation.*" Under this heading we are compelled to list many things which have contributed to the situation in which we find ourselves today. In this column we must list such practices as sub-standard wages, child labor, sweat shops, unsafe practices, use of force and violence, discrimination, favoritism, cut-throat competition and inhuman treatment. There are others, but these are typical.

Most of these practices are no longer condoned in the average American industry; yet this observation holds true only for the present. Thirty years ago, most of them were generally accepted without much question. Only fifteen years ago, in many industries, the chief requisite for a foreman was that he have the strength and capacity to knock down any workman under his supervision. "Right" policies is no fixed standard. These standards change from generation to generation. Today, however, I feel sure that general contemporary practice would place them right where we have placed them—under the head of exploitation. Needless to say, if any of us are allowing any of these things to go on in our plants, we are not just out of tune with the times; we are acting in our own worst interest.

A Policy of Weakness Leads To Disintegration

At the left, we have a column indicating policy at the other extreme. We might label this one "*Weakness.*" We can get too soft, just as easily as we have, in some instances, been too hard. The management of General Motors anticipated this situation when they issued their first public statement of labor policy in 1933. In discussing collective bargaining, they pointed out that, "It does not mean employer-employee management and must be limited to employer-employee relationships." There is a distinct difference between the two. When a management surrenders those prerogatives which, by their very nature, belong to management alone, we can call this "weakness." We can be weak in other ways. We can become frightened when crises arise, and raise wages, agree to benefits, and start precedents which are not for the best long-term interest of the enterprise itself. Ultimately, the management, employees, customers, and stockholders all suffer. Therefore, between being too hard on the one hand and too soft on the other, we face the necessity of defining right policy down a sound course between these two extremes. Just what this sound course should be becomes clearer as we understand fully the unsoundness of the extremes.

A Sound Center Course Must Be Followed

Therefore, we turn to the center column and we might label this "*Tenents of industrial capitalism.*" Broadly—and very broadly—I suggest that industrial capitalism means four things:

1. That the purpose of business, through the process of profitable enterprise, is to provide an over higher standard of living for people—in our case, the American people.

2. That management must give better products at lower cost, in order that the greatest number of people may enjoy their use.

3. That each individual has a right to a standard of living commensurate with the contribution he makes to the standard of all.

4. That management must see that its policies and practices give each individual the opportunity to achieve his rightful standard.

None other than Henry Ford put it this way: The American system "is to pay higher wages, to give buyers more value, to find methods that are less expensive, to keep prices and profits low, in order that volume and wages and service may be high." These statements are, admittedly, general and philosophical, but perhaps they do serve as an aid to judgment.

It is not an impossible task to determine what is good, acceptable, contemporary policy. Executives, industrial

(*Continued on Page 43*)

Textile Mill Lubrication Discussed at Raleigh Meeting

THE Spring meeting of the Eastern Carolina Division of the Southern Textile Association was held in the lecture hall of the North Carolina State College Textile School, Raleigh, N. C., on Saturday, May 6th, with approximately 250 present. J. L. James, superintendent of the Erwin Cotton Mills Co., Plant No. 1, presided as chairman and called the meeting to order.

Thomas H. Nelson, Dean of the Textile School, spoke a few words of welcome and introduced Col. J. W. Harrelson, Dean of Administration of the State College of Agriculture and Engineering, who spoke of the growth and progress of the textile school and gave a short account of a symposium on the importance of business and economic research in the textile industry, held at State College on May 5th under the joint auspices of the Textile School and the Textile Foundation.

J. L. JAMES
Retiring Chairman

J. B. BATTEN
New Chairman

Following the talk by Col. Harrelson, a moving picture, with sound, was shown through the courtesy of the Socony-Vacuum Oil Co. The movie was devoted to an explanation of the action of lubricants on various types of bearings, gears, etc., and was very effective in demonstrating the importance of proper lubrication in effecting power savings and preventing the wear of metals as a result of faulty lubrication.

Following the showing of the picture, the meeting was devoted to discussion of lubrication of textile mills, a stenographic report of which follows:

F. H. Trewin, Engineer, Socony-Vacuum Oil Company, Inc.: I might say, Mr. Chairman, that in lubricating we have an individual problem in each mill. In selecting the type of lubricant that we use we have to consider the speed of the machines and the method of applying the lubricant to the bearing or other part. It is necessary that the bearing be floated in an oil film, to prevent contact of the metal surfaces, with consequent wear. We have to select a type of oil that will give the proper surface. The oil must be of the proper viscosity and stability, so that it does not change while in use.

Lubrication influences the power consumption in our mills. We know that the spinning room takes, roughly, fifty per cent of the total power used in the mill. The percentage is probably even higher. What can we do, then, with the spindle lubricating problem in order to save power? We should have a complete oil film separating the surfaces; that is what we want. If we do not have that but have only boundary lubrication separating the metal surfaces, we get bolster wear. We want high stability and resistance to oxidation in the oil, so there is no deposit in the bases. If there is a deposit in the bases the power consumption goes up rapidly.

Oil is not all the same. There is a great deal of difference between one lubricant and another on these boundary films, under extreme conditions. In an automobile, for instance, sometimes a mineral oil is not enough and we have to add something to it because of the heavy load.

Is there anything we can do to increase the oiliness or film strength? That is the question in the textile industry. It is only through research that we have been able to develop these things. Oil is not just oil, particularly on your boundary problems. We still have a long way to go in research on the possibility of power saving in the textile mill or in any other industry in which we use oil for hand oiling. One of the large cost factors in the textile mill is power. In many of our mills we do not have burned-out bearings; we do not have bearing failure or trouble of that kind; but we have power losses through the resistance to motion of parts. That can be directly affected by correct lubrication, for which we are all striving.

If there are any questions I shall be glad to try to answer them.

Viscosity and Flash Point

Chairman James: I should like you to explain, Mr. Trewin, what is meant by viscosity and what is meant by flash point.

Mr. Trewin: Viscosity is a relative measurement; simply a relative measurement of the body, you might say, of a lubricant. For instance, you have a temperature reading on a thermometer, say. That simply gives the degree; it is a relative measurement. A temperature reading is not a measurement of quantity. We have adopted the Centigrade scale and the Fahrenheit scale simply in order to measure what we call the degrees of temperature. Viscosity is more or less the same thing in relation to oil body. It is an arbitrary measurement which has been set up or a scale reading to determine the body of an oil. It determines that body at fixed temperatures for purposes of comparison. Take a spindle oil, for instance, of 60 seconds viscosity at 100 degrees F. That means on this instrument, if we put a given quantity of oil into a receptacle and maintain it at 100 degrees temperature, that oil will take 60 seconds to flow through a given type of orifice. That in itself means relatively nothing, but it gives us a scale or means of measurement.

A given viscosity at one temperature does not mean that that oil stays at that body. A spindle oil, gentlement, of 60 seconds viscosity at 100 degrees F. has a body 50 per cent heavier or more at 65 degrees F. In other words, as the temperature drops the body increases. In the same way, as the temperature goes beyond 100 degrees the viscosity or body falls down. At 210 degrees F. we may have a body of 40 or 42 seconds. (I am simply quoting arbitrary figures.) Viscosity is only a means of measurement, and what we are interested in is what is the body of that oil at the operating temperature, because body changes with temperature.

Lubricants do not change at cold temperatures from liquid to solid, as water does in changing from water to ice at 32 degrees. Water has a relatively flat body. But lubricating oil increases tremendously in body up to the point where the formation of certain crystals in the oil starts. From there on you get a certain crystal formation, but oil does not change into a hard cake.

Viscosity is, therefore, probably one of the most useful measurements we have in adopting types of oil for different processes.

What is flash pont? Flash point means the temperature at which, when oil is heated in a bath, it will give off vapors which will ignite when we pass a gas flame over the surface of the oil. It does not mean burning of the oil; but it is the temperature at which those vapors, when mixed with the oxygen of the air, will ignite when a gas flame is passed over the surface. That has no relation to our lubricating problems, as we see it. The amount of vapor which is passed off at the flash point is minute—very minute. We never, in industry, reach temperatures which cause our oil to distill. It does, however, have this value. If the oil is blended with some other material, as kerosene or something of that kind, that oil will flash off at a lower temperature than does a heavy oil. But so far as industrial use is concerned, flash point has little or no value.

Winter and Summer Lubrication

J. W. Cates, Supt., Edenton Cotton Mills, Edenton, N. C.: Suppose you are using a 60 seconds oil in the winter—say in January, and that gives proper lubrication. Then in August what will that 60 seconds oil do?

Mr. Trewin: You are talking about a 60 seconds spindle oil?

Mr. Cates: Yes, sir. The reason I asked that question is that there has been a wonder in my mind if you get the same protection from 60 seconds oil in August as we do in January.

Mr. Trewin: You do not get the same protection from 60 seconds. What was it in the winter time, when you were getting what you consider your best operation? In that 60 seconds oil in the summer. What is your room temperature in the summer time?

Mr. Cates: I would say 85 and up.

Mr. Trewin: What is the temperature of your spindle bolsters?

Mr. Cates: I don't know.

Mr. Trewin: Do they feel much warmer to the hand? Would you say they are ten degrees higher than the room temperature?

Mr. Cates: I would say approximately ten degrees.

Mr. Trewin: Let us say you have 90 degrees in the room and 10 degrees more on the spindle bolsters. That means that the oil in there has a temperature of 100 degrees, and its viscosity or body at that temperature is the winter time your room temperature would be what?

Mr. Cates: 70 or less.

Mr. Trewin: Say it is 65. The body of that oil in the winter time is about 60 per cent heavier than it is in the summer. In other words, if conditions are right in the winter time, you are using an oil which is about once and a half the weight of that oil in the summer time. That is when we get into trouble. We do get lower power consumption (we all know that) in the summer time if the mills are correctly lubricated. The viscosity for an oil of that type you are speaking about is about 100 seconds viscosity at 65 degrees temperature in the bolster and 60 seconds viscosity at 100 degrees in the bolster.

That is the reason we have had to go to heavier spindle oil. As we go to heavier packages and higher speeds, with higher impact loads, we have had to go to heavier viscosity or body spindle oils. Why? To prevent the development of wear, which eventually means losses in the yarn. We used to use 60 seconds viscosity spindle oil; but with higher speeds, heavier packages, and high impact loads on the bolster we have had to go to heavier oils. It means that you are getting oil, under your operating conditions, which gives you better protection. I would say that under your operating conditions, under your operating temperatures, the range of viscosity of the oil is between 100 seconds and 80 seconds.

This brings up another interesting point. With this necessity for increased viscosity in spindle oils, with high impact loads on the bolster and high speeds, we have to protect against our extreme conditions, which come from operation in the summer time. We must have the right viscosity of oil there under the most extreme condition.

Let's reverse our problem. In the winter time, with a drop in temperature of 35 degrees, the oil will be twice as heavy as it was in the summer time. What can we do to meet that problem? I suggest using an oil of correct viscosity in the summer time; then, as winter comes on, add a lighter spindle oil in the bolster, so that in winter you have the same relative viscosity in the bolster as you do in the summer with the heavier oil.

Question: Do you think the temperature of the bolster varies as much as the temperature of the atmosphere?

Mr. Trewin: No, it does not vary as much, because our differences in temperature are due to radiation, of

(*Continued on Page 38*)

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S. T. A. Piedmont Division Discusses Spun Rayon—New Developments

Following is a continuation of the discussion session at the meeting of the Piedmont Division of the Southern Textile Association in Charlotte, N. C., April 22nd. The first part of the discussion, which was devoted largely to spun rayon, was published in the May 15th issue of Textile Bulletin.

B. M. Bowen, superintendent of the Salisbury Cotton Mills, Salisbury, N. C., is chairman of the division.

William M. Aspenwall: What is the traveler the gentleman uses?

Mr. Williams: What is your traveler, Mr. Williams?

Mr. Williams: We use a cotton traveler on plaited goods. On the plain we use the old flange traveler. We changed the traveler three or four times until we found just what we need. We get very good results now.

Mr. Brannan: I notice that Mr. Williams says he changes every five days. The round traveler in the shape of a half moon gave me better results than anything else. If I were running spun rayon my boss would have a hard time until he got them for me. I had the same experience Mr. Williams had until I began using those.

Oil On Rayon

R. H. Hope, Supt., Erlanger Cotton Mill, Lexington, N. C.: Do you use oil on rayon?

Mr. Williams: We don't use a thing. Just run it straight.

Mr. Aspenwall: I noticed sometimes we got rayon that has been treated with oil.

Mr. Dilling: Do you find the oil an advantage to it?

Mr. Williams: Yes, sir.

Question: What percentage of humiditd do you use in the picker room, Mr. Williams?

Mr. Williams: About 50 to 55.

Speaking about oil in rayon, we had a little experience with that a few months ago. We were using a certain kind of rayon and had a little trouble. A man from the manufacturer came to see us, and we took him in the plant and showed him the trouble we had. After that they changed the rayon, and I thing they put oil in it. They never would tell us, but I think they did. They shipped us some, and we could not do anything with it. The man came back and saw it, and they changed again, and I think today they are making just as good rayon as other concerns. We do not use any oil at all.

Sizing On Spun Rayon

Question: Do you change the size for rayon?

Mr. Williams: As to this size proposition, a lot of cotton size has been used for rayon, and there have been many complaints about it, not so much from the finisher as from the fellow who sells the size. I have had a number of men tell me that they have the best size in the world for rayon, and I have run it and could not tell that it was any better than my regular cotton size. I use the same size for cotton and rayon.

Question: Do you use cornstarch?

Mr. Williams: Yes. I use the same compound all the way through.

A Member: Do you get more shedding from the rayon than from cotton?

Mr. Williams: No, we do not. We do not use as much size on rayon as on cotton, because rayon absorbs very quickly. If you drop a piece in a bucket of water it is full of water in half the time it takes cotton to get wet.

Mr. Dilling: Have you run any cut acetate rayon?

Mr. Williams: We made 220,000 yards of acetate rayon. I forget the construction, but we made a world of that.

Mr. Dilling: How did that size, in comparison with cut rayon or cotton?

Mr. Williams: Well, we used the same size.

Question: What percentage there was acetate?

Mr. Williams: Twenty per cent acetate.

Mr. Dilling: Hardly enough to show up.

Mr. Williams: No, it did not show up, but it did make beautiful goods.

Two-Ply Selvage

J. C. Childers, Overseer Weaving, Erlanger Cotton Mill, Lexington, N. C.: Did you make a two-ply selvage?

Mr. Williams: We tried it both ways. But in rayon I find we get a better selvage by bringing the ply yarn up over the back of the roller, the squeeze roll. It does not get down into the size at all. But you get plenty of size there to run, and it is not so stiff. If you get the selvage on there wet you have to burn up the rest of the yarn to get it dry, and you will get a rusty spot on your beam roller.

Mr. Dilling: That is caused by your ply rayon being so much more absorbent.

Mr. Brannan: Do you run tape selvage or run plain selvage, Mr. Williams?

Mr. Williams: Some of ours is tape and some plain. It depends upon the weave. With every weave we get we

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run one loom on it before we decide on the selvage. We run some cloth and spread it out and decide about the selvage.

Mr. Childers: I should like to ask about that selvage. Doesn't the selvage get completely wet from the front squeeze roll?

Mr. Williams: No. I ran it first over two squeeze rolls and found it helped some. Then I cut out another squeeze roller and found it still better. Now we hardly ever have a wet selvage.

Mr. Bowen: In running mixtures of rayon and cotton what changes are necessary on your licker-in and cards?

Mr. Williams: I don't want to mention that. I have the settings, but I did not bring them with me. We have regular settings for our spun rayon and everything else. We have it all down in our office, but I would not want to say offhand, because I might get someone in trouble.

Chairman Bowen: Some changes are necessary, are they?

Mr. Williams: Oh, yes.

Chairman: In mixing it with cotton, which is best, to leave your screen set so that it will clean the cotton and take out some rayon, or to set it so that it leaves some foreign matter in the cotton and save your rayon?

Mr. Williams: I think the best solution is to buy a good grade of cotton, that does not have much foreign matter in there.

Chairman Bowen: You know this comes up; the trade will want the cloth clean, and the mills want to save the rayon.

Mr. Williams: That is true. You are lucky if you have a grade of goods such that you can mix some of it in there. But if you are running a good grade of goods it is better to buy a good grade of cotton and then take out as little as you can.

Mr. Dilling: Or card your cotton before mixing it with rayon.

Mr. Williams: Yes, sir.

Mr. Brannon: We did that; we double-carded our cotton and put it back and used the same settings, due to the fact that the card will run thicker with rayon than it will with cotton, and it makes your waste more expensive. So we double-carded our cotton and used the same settings on the screens that we used on rayon.

Mr. Bowen: It would depend upon the cotton you were using?

Mr. Brannan: Yes. To begin with, we had an extra good grade of cotton.

A Member: Wouldn't it be possible to mix your cotton and rayon on the drawng?

Mr. Dilling: In some places that would work.

Mr. Williams: If you have a box loom you might do that. It means you have a third of your cotton out and a third of your rayon out. Then when you change a bobbin you can not tell where that change comes. We tried that on acetate and had a bad piece of cloth.

A Member: You could get by with that better on rayon than you could on acetate.

Mr. Blaylock: In mixing acetate, do you get a floor mix or just what kind?

Mr. Williams: We mix that on the floor, then put it through three processes of picking.

Mr. Dilling: As there any other questions or remarks?

Mr. Bridges: How do you handle the card grinding on spun rayon?

Mr. Williams: We have fifty or sixty cards and grind about every twenty days.

Mr. Bridges: You find that keeps them in pretty good shape?

Mr. Williams: Yes, sir.

Mr. Brannan: I was always fortunate enough to have a section of the room or the entire room on rayon. I found that rayon does not card quicker than cotton. I try to get around every fourteen days on cotton, and on rayon I tried to make that every ten days. I found that my cards would become dull much faster on rayon, when running it continuously, than they do on cotton. If you let it go for a period or six months or a year you will find you will get into trouble, because that rayon will nep, especially on 1.5 denier. I was forced to do it, whether I wanted to or not, because of the demands of the trade.

Mr. Bridges: Do you find that the rayon wastes more than cotton when the cards begin to get dull?

Mr. Brannan: Well, not enough to be noticeable.

Mr. Williams: How did you strip?

Mr. Brannan: On my rayon I stripped it with the roller. We found that it was better to strip the rayon with the roller because, due to the heavier weighting, it would push it into the foundation.

Mr. Williams: How often do you strip?

Mr. Brannan: Stripped four times in eight hours.

Mr. Williams: We strip ours just twice a day. We must be running a different kind of rayon.

Static Card Stripper

Mr. Dilling: We had better pass on to the next part of the program and tell what new ideas we got at the show in Greenville. In connection with rayon, I think the first thing would probably be the new stripping device there for cotton or rayon. Who was there that examined it, and would it be worth while?

Mr. Hardie: Was that the static stripper?

Mr. Dilling: The static stripper.

Mr. Hardie: I looked at it some months ago and wrote the makers about it. They wanted $200 to put in one on the card, and I just let it go. It looks like a fine thing. They say they are going to reduce the price.

Mr. Dilling: I believe they say it would eliminate from 75 to 80 per cent of the stripping and that you would have to strip only once a day.

Mr. Hardie: Yes, sir. It would be worth while if we could get away from the continuous stripping, which dulls the clothing. I think it would be worth while to try it if they would get the price down.

Mr. Dilling: Who else looked at that device? We do not know about it from experience, but we can give our ideas.

Mr. Hardie: What do you think about it, Mr. Dilling?

Mr. Dilling: I think it would be very well worth while. To those that did not see it I might say it s a disk or plate that you put under your cylinder. The motion of the plate creates a static there, and that static pulls the fibers out of your card clothing. This device pulls it out or keeps it pulled out of the cylinder constantly, and as it runs by the licker-in and flats it is put right back into use again. Therefore your cylinder will not lap up. If you now strip every three hours, with this device you would probably need to strip about every eighteen hours. The stripping would be about one-sixth of what it is without this device. Certain fibers load up into the cylinder that this static will not pull out, and therefore it would be necessary to do some strippings.

Are there any other comments about this or any questions?

Mr. Hardie: I wonder if anyone has seen one in operation?

Mr. Dilling: I have not seen it in operation. Mr. Bridges, have you?

Mr. Bridges: No, sir. I wonder f they keep the static in behind all the time and don't let it get around in front. (Laughter.)

Mr. Dilling: Yes, sir, that will give trouble. But I think probably the makers of this stripper have eliminated that, or they could not get by with it. I am like Mr. Hardie; I am just waiting for the price to be reduced to try it.

Are there any other remarks on that? If not, what else did you see at the Greenville Exposition that gave you any new ideas? Was the new paper bobbin, or tube, as they call it, to put on the spinning spindle, on exhibition there?

Mr. Hardie: Yes, sir.

Mr. Dilling: What did you think about it?

Mr. Hardie: I was very much interested in it. The Saco-Lowell representative was around there, and I asked him about the total weight of the spindle and bobbin of paper compared with the ordinary spindle and bobbin weight, and he said it would be about the same. The principle of it, I thought, is good. It looked to me as if we would certainly get away from the vibration that we all have on some of our bobbins when they get a little old, and it looked to me as if we could run at slightly higher spindle speed. The use of these would reduce our costs somewhat, I think. The paper tube would not run as long but would cost less.

The sleeve types of spindle, I am told, is the type used in European countries. I think it has possibilities.

Mr. Dilling: In the European countries, particularly, and also in New England the paper tubes or cups are used much more than we use them in the South. I wonder what the advantages are, if any, and why we have never used them. Mr. Aspenwall, can you tell us?

Mr. Aspenwall: I have seen it used mainly for transferring yarn from one plant to another.

Mr. Hardie: Mr. Dilling, what do you think about using those with the regular spindles?

Mr. Dilling: It is larger than the average spindle, so I think if you are going to use them to any extent it would be advisable to have your spindle made larger.

Who else has a thought or an idea that came to him at Greenville? What else did you find, Mr. Hardie?

Automatic Quiller

Mr. Hardie: Mr. Dilling, I was especially interested in that automatic quiller they had. I thought that was one of the biggest improvements that has come out in the textile industry for some time. I know one mill that has an installation of the automatic quillers, and one hand does what five did before.

Mr. Dilling: Tell us how that works. I saw it but did not examine it.

Mr. Hardie: Of course, in a straight cotton mill we do not have that, but anyone running rayon has to quill it, and every bobbin has to be put on and taken off by hand. This machine puts the bobbin on, runs full, and doffs. The only thing the operator has to do is change the cone. In running rayon quilling is a rather big item. A friend of mine who has had one of these automatic quillers in for six months says they have not had to put a repair part on it. That mill is seriously considering changing the whole room to it. They run it about 100 per cent faster than ordinary quillers run. I should say, just offhand, that one would probably take care of four looms, though it depends upon the width of the goods, the speed, and other factors.

Mr. Dilling: Who examined the new machine they had for drawing in steel heddles?

F. F. Ritch, Textiles, Inc., Gastonia,, N. C.: I saw it but was a little disappointed in it. It was not quite as perfected as I thought it was going to be. I think pretty soon every mill will be using that rather than drawing them in by hand. Of course, we know it is possible to draw in warps by machine. If you noticed, there is an extra eye in the harness, and you just fit in the drop wires as tight as in the old dawing-in machines. It would be necessary for every man putting in these machines to buy an extra set of harness eyes. That would make it pretty expensive, but on fancy goods it would be worth while. The machine draws the harness eyes in in the same manner it did the drop wires in the old machine.

Question: Is that just for straight drawing?

Mr. Ritch: No, they can draw patterns on it.

Mr. Williams: Would that take care of pattern work with four or five different colors of yarn?

Mr. Ritch: I do not believe it would. We have an old machine in our mill, and we have never been able to draw colors in on that. Some do, but we have not been able to.

Mr. Dilling: You could not do that unless you got something that would distinguish between the colors.

Who saw anything else that gave you an idea?

Chairman Bowen: There was an imported machine down there that interested me. I do not remember the name of the thing, except that it is a winder. If you have that machine, you can spin your filling on warp frames and on warp bobbins. That eliminates a lot of doffing, and you get more on a bobbin. Then you take it to this machine and wind it off the warp bobbin onto a filling bobbin for your loom. You get twice as much on the bobbin as if you wound it on a filling bobbin. You know most of your seconds come from filling changes on the loom, and if you can eliminate them it seems to me it has great possibilities. The price of the machine was about $2,500 in England. One of the American machine builders is working on one to take the place of it in this country. They have not gotten theirs quite as perfected as the other machine.

Mr. Dilling: That would eliminate half the filling changes?

Chairman: Yes, sir.

Mr. Hardie: That was the same thing I was talking about.

Mr. Dilling: Yours was winding from cone rayon?

Mr. Hardie: Well, they could wind from the bobbins just as well.

Mr. Bowen: There was a crowd around there, and I could not find out very much about it. But you spin your filling on a warp bobbin and then wind it on this.

Mr. Hardie: They are working on the right path, I think. You could spin your filling before on a warp bobbin, but it cost so much to quill it. They would have to reduce the quilling cost before we could do it. If they can reduce the cost it might pay even print-cloth mills to use it.

Chairman: Mr. Hardie, the cost of this one would be prohibitive, but if the American company can work out theirs the cost will be very much reduced because the production will be so much greater.

Mr. Dilling: Who else saw something worth while? What about the new feed roll for cards? It is a new feed roll covered about the same as a licker-in.

Mr. Blaylock: We have several of those running.

Mr. Dilling: Tell us about it.

Mr. Blaylock: Those feed rolls, especially on rayon, seem to fill up faster than the old type of feed roll. In other words, with the draft from the licker-in there is short fiber packed in there, and it seems to cling to it more than the old type.

Mr. Dilling: How often is it necessary to clean them?

Mr. Blaylock: Clean them twice a day.

Mr. Dilling: Do you have to take it out to clean it?

Mr. Blaylock: No, sir. We have a little card clothing gadget that we clean it with.

Mr. Hardie: What is the advantage? Does it hold the lap better?

Mr. Dilling: I understand it holds the lap better and eliminates the danger of choking.

Mr. Blaylock: The licker-in bites it off more evenly than it does on the old type. It does not go in in chunks.

Mr. Dilling: As Mr. Williams said, it is very necessary to have our rapon laps in good condition to get the best results and to keep the licker-in from choking.

Mr. Brannan: I wonder if Mr. Blaylock has tested that out for breaking strength. You know we all have to take that into consideration. Has it improved the breaking strength?

Mr. Blaylock: Very little. It improved some.

Mr. Hope: I should like to ask if anyone has a stretch control on the slasher and if so, what make and whether it works successfully or not.

Mr. Hardie: There are some very good ones on the market that I think are worth while if you are on fine goods or on rayon.

Mr. Dilling: Is there any further discussion? If not, I turn the meeting back to Mr. Bowen.

Chairman Bowen: A committee was appointed to nominate officers for the Piedmont Division for the coming year. We will hear from Mr. Dilling, the chairman of that committee.

Officers

Mr. Dilling: Mr. Chairman, the committee took this matter under consideration, and we should like to recommend the re-election of the present officers of the Division. They are B. M. Bowen, Salisbury, N. C., chairman; and B. Ellis Royal, ex officio, secretary; members of the Executive Committee: J. L. Brannan, Camden, S. C.; R. B. Cooke, Mooresville, N. C.; M. T. Poovey, Rockingham, N. C.; A. W. Benoy, Shelby, N. C.; and J. C. Edwards, Laurel Hill.

We recommend, Mr. Chairman, that the present officers and executive committee be re-elected. Since you are an officer, I will put the question. Are there any other nominations?

Mr. Brannan: I should like to say that I heard that Mr. Edwards is moving to Florida for an indefinite time on account of his health. We should all like to see Mr. Edwards here and think very much of him, but we do know that he resigned at Laurel Hill.

Mr. Dilling: Are there any other nominations?

A Member: I nominate Mr. John A. McFalls, of Rockingham, N. C., in place of Mr. Edwards.

Mr. Dilling: We will put Mr. McFalls' name in instead of Mr. Edwards', then.

. . . . With this change, the recommendation of the nominating committee was adopted.

Mr. Dilling: Here is what the nominating committee thought. This division has not been in operation very long, and we thought if we kept the same committee functioning for another year and then put in some new men they could do more to keep the organization going than if we put in a new committee at this time.

Chairman Bowen: If there is nothing further to come up, I should like to ask that we all be talking and thinking of the fall meeting and getting ready for it, and let's try to have a good attendance.

Has anyone anything further to say?

Mr. Dilling: Let's ask Mr. Royal to make any announcements he wants to about the annual meeting.

. . . Mr. Royal announced that the annual meeting of the Southern Textile Association will be held at Myrtle Beach, S. C., on June 16 and 17. He said that a good program is being prepared and urged the members to attend and advised that they make their reservations.

. . . The meeting then adjourned.

Howard Bros. Mfg. Co. Gastonia Plant

Above is pictured the new plant of Howard Bros. Manufacturing Company, located at 833 South York street, Gastonia, N. C. The building, which is of brick construction, has 3,400 square feet of floor space.

The shop, considered one of the most modern of its kind in the South, is equipped for rewinding lickerins and clothing flats. A large stock of card clothing will be carried there at all times to insure prompt service to Howard Brothers' customers in this section.

Carl Moore is in charge of the Gastonia plant, which will eventually employ between 12 and 15 people.

For a number of years the company has maintained a well equipped plant in Atlanta to serve mills in the Georgia, Alabama and Tennessee territory. The Atlanta plant is under the supervision of Guy L. Melchor.

Japan Dumping Textiles in United States

Washington, D. C.—Treasury officials said they were investigating complaints that Japan was dumping crude cotton cloth in the United States at less than fair market value.

They said the complaints, coming from New York textile manufacturers, were under study both in New York and in Japan.

It is difficult, they added, to determine the fair market value of the cloth from a Japanese standpoint, because it apparently was manufactured in Japan only for export purposes, and there was no domestic Japanese price with which the export price could be compared.

Officials said that if the shipments were found to violate anti-dumping provisions of the tariff law, they would assess heavy penalties against the merchandise.

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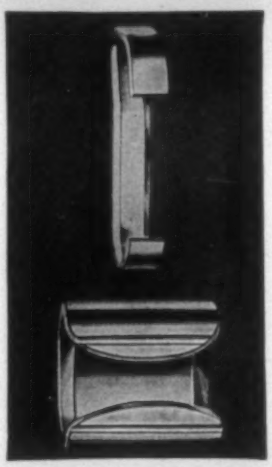
BEVEL



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How To Prevent Uneven Yarn

Following are further articles submitted in the contest on "How to Prevent Uneven Yarn." A total of 75 articles were submitted, and the winners will be announced as soon as the judges have had time to properly read the articles and judge their merit.

NUMBER SEVENTEEN

How to prevent uneven yarn is a book within itself, requiring charts, text records, and data necessary for the correct setting, speeds, and length of staple in the various process. Since such is not possible here, a discussion of the causes of uneven yarn will be given, leaving it up to the mill operator to determine the extent to which he will go in making the necessary adjustments on his machine.

The first requirement for an even yarn is a staple cotton in which the fibers must all be of the same approximate length with only a minimum quantity of short and long fibers. This cotton must be properly aged and entirely free of gin cuts, leaf, sticks, rocks, and other trash.

Next the cotton must be allowed to expand sufficiently a period of time before being put into production.

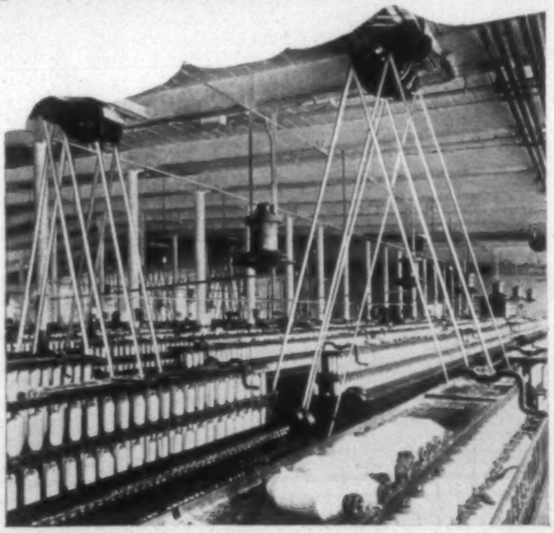
The opening room equipment should be sufficient to properly blend, open, and clean the cotton without too much beating to injure the staple length or cause curling. Waste or reworked white waste stock should not be added to this cotton in any great quantity.

When the cotton reaches the pickers, a number of items must be carefully checked in order to preven uneven laps, including stock low in the hoppers, worn and loose gearing, slack belts, beaters dull, incorrect setting, improper beater and fan speeds, chokes in damper flues and screens, dust house flues choked, leathers badly worn around screens, loose evener belt and cones, air current not adjusted properly, lap rack friction too much or not enough, damaged lap pin, damaged cheeks, knock-off motion loose or worn, and damaged rollers in lap rack.

One important job of the picker room is to produce laps of even weight, lap for lap, each lap having the same quantity of cotton regardless of moisture. This may be maintained through the use of a regain indicator, even if the picker room has humidity or not. A Saco-Lowell lap tester should be used here testing a lap from each machine three times a week. If a bad lap shows up, have the section man check the items that might be the cause and then make another test to see if it is corrected.

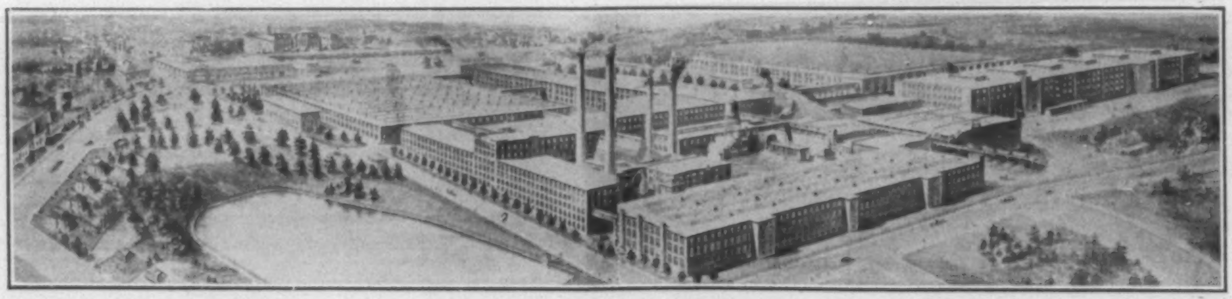
The lap now passes to the cards which must have well sharpened, first class clothing on the cylinder, doffer, flats, and licker-in. All parts should be in proper adjustment, the lap being laid in at the back must not form a thick joint, nor a thin one, causing light and heavy places in the sliver.

The web inspected from time to time for good selvages and clean web stripping should be carried out once every few hours as needed, making sure that both cylinder and doffer are producing the correct weight sliver before tying it in with other sliver run.



Clothing must be tight on the card, bearings and gears tight and in good condition, and trumpets of correct size. The entire card must be in good repair, with no chokes between screens. Most important is that the cards are not resting on flooring which vibrates from other equipment operating.

On the drawing frames there are a number of things that will give you trouble, such as stop motion not set to stop the frame quickly, bad rolls, worn roller stands. Rolls should be set for staple being run, also for size of the bluk, correct size trumpet, rolls properly weighted and oiled. Trouble is also caused from bad gearing and gearing not properly set, gears loose on key causing cut drawing, bent bottom steel rolls, excess speed and draft, tension too tight. If metallic top rolls are used the collars sometime become worn, allowing too much crimp



cutting drawing. I prefer two process drawing with the drawing being creeled in.

I suggest that a Saco-Lowell sliver tester be used for the cards and drawing sliver. A test should be made from each drawing frame once each week. This machine will show whether your work is good up to this point and it can also be used to test roving up to 1.50 hank.

With the long draft roving frames some of these defects have been getting by unnoticed with the doubling in the creels, but before we will be able to make an even roving on these frames, we will have to give more attention to our picker laps, card and drawing sliver.

With drawing sliver perfect we now go to the roving frame, and we can test this roving with the Belger roving tester and if uneven work is found we know that it is due to the defect of the frame, or operator, such as improper roll setting, rollers not oiled, bad rollers, worn roller stands, traverse guides not set properly, choke and laps on bottom steel rolls, bent bottom roller, improper tension and lay, cone belt not set at proper position at the start of bobbin, cone belt bad or slipping, bobbin gears jumping, bad flyers, choke in flyer, bad bobbins which have become too small in diameter. Gears should all be in good condition and set properly.

For a frame where the roving is put into the freel, all skewers should be in good condition to allow the roving to be pulled off without straining it. Also, roving should have enough twist to allow for this. Rollers should be weighted properly and excess speed and draft prevented. Some long draft frames are equipped with leather aprons which after a period of time become worn and will allow the roving to vary in weight.

If the roving tester shows that the roving is even with the proper twist and tension through the bobbin, we now go to the spinning frame. If this roving is made on the long draft roving frame, it should be run double in the creel for an even yarn.

Of course the humidity and temperature is kept correct throughout all processes.

Causes of uneven yarn on the spinning: Traverse motion not set properly, rolls not set properly, rolls not oiled or weighted properly, bad rolls and roller stands, bent rolls, chokes on rollers, gearing worn or not set properly, excess speed and draft, rings and travelers worn, travelers not correct weight, slack tapes, spindles out of plumb, crooked cylinders, bad thread guides, rings too large for size bobbin used.

Help must be well supervised as to cleaning, oiling, creeling, piecing up ends, and picking clearers. Bad help can be one of the greatest causes of uneven yarn.

On the roving frame the roving should be sized each eight hours, and a test made of each frame with the roving tester once each week, or whenever any variation shows up in the yarn.

I believe that the best equipment mentioned, if properly used, will be a benefit to any mill.

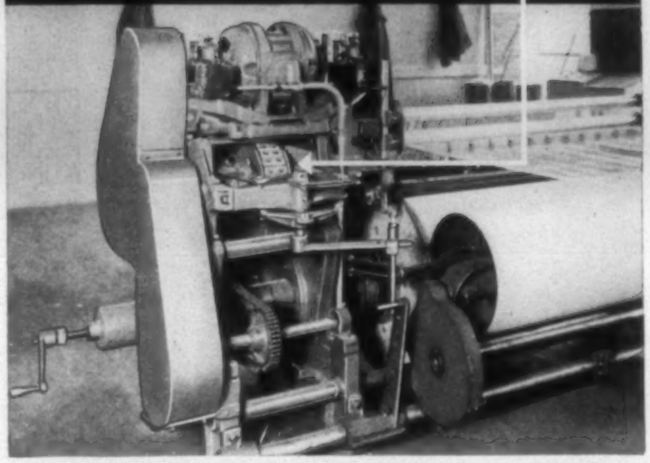
J. H. C.

NUMBER EIGHTEEN

In this brief discussion of how to prevent uneven yarn, I shall not attempt to say what staple or kind of cotton should be used in making yarn because no particular kind or number is being taken into consideration.

(*Continued on Page 35*)

Accurate
PROCESSING CONTROL
...THROUGH CORRECT MACHINE SPEEDS



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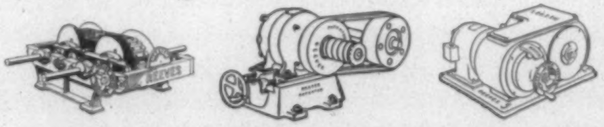

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Goodrich To Build New Plant in Tennessee

Cleveland—Contracts will be let and work started immediately on a new B. F. Goodrich Company plant in Clarksville, Tenn., which will make a line of mechanical rubber goods.

The plant will represent an investment of more than $1,500,000.

This will be the first new plant to be constructed by one of the major rubber companies this year. In February, Goodyear announced a $3,000,000 program which, however, was for purpose of modernizing Akron plants of company to make them competitive with those elsewhere.

Decision to build the new Tennessee plant followed a two-year period of intensive studies and industrial surveys looking toward the development of production facilities of the greatest long-range value to company, it was announced.

While Goodrich has a plant in Silvertown, Ga., for making cotton tire cord, new manufacturing facilities will be company's first factory in the South for rubber products. About two years ago Goodrich acquired building in Oakes, Pa., and in Cadillac, Mich., which are now being used for making tires and mechanical goods.

Spinning Miills' Operating Level 84.6% in April

Washington, D. C.—The Census Bureau reported the cotton spinning industry operated during April at 84.6 per cent of capacity on a 2-shift, 80-hour week basis, compared with 86.6 per cent during March this year, and 59.5 per cent during April last year.

Spinning spindles in place April 30th totaled 25,680,020, of which 22,109,394 were active at some time during the month, compared with 25,827,970 and 22,472,330 for March this year, and 26,539,440 and 21,786,054 for April last year.

Active spindle hours for April totaled 6,892,934, or an average of 268 hours per spindle in place, compared with 8,235,568,348 and 319 for March this year, and 5,265,957,018 and 198 for April last year.

Spinning spindles in place included: In cotton-growing States, 18,552,542, of which 16,814,854 were active, compared with 18,607,766 and 17,042,764 for March this year, and 18,816,872 and 16,428,336 for April last year; and in New England States, 6,336,240, of which 4,696,338 were active, compared with 6,420,464 and 4,812,106 for March this year, and 6,921,496 and 4,757,946 for April last year.

Active spindle hours for April included: In cotton-growing States, 9,643,987,147, or an average of 295 hours per spindle in place, compared with 6,424,370,180 and 345 for March this year, and 4,166,702,093 and 221 for April last year; and in New England States, 1,293,585,569, or an average of 204, compared with 1,650,407,099 and 257 for March this year, and 978,988,752 and 141 for April last year.

Active spindle hours and the average per spindle in place for April by States follow:

Alabama, 526,304,117 and 286; Connecticut, 11,268,928 and 212; Georgia, 1,000,398,673 and 308; Maine, 148,128,027 and 215; Massachusetts, 689,810,651 and 194; Mississippi, 44,312,128 and 222; New Hampshire, 89,581,808 and 181; New York, 58,535,412 and 169; North Carolina, 1,631,778,913 and 276; Rhode Island, 237,275,099 and 244; South Carolina, 1,800,811,990 and 317; Tennessee, 190,801,596 and 322; Texas, 68,798,108 and 276; Virginia, 165,120,256 and 258; all other States, 129,861,228 and 176.

Arnold, Hoffman & Co. Adds Philip Lavoie To Service Staff

Arnold, Hoffman & Co., Inc., manufacturing chemists, with headquarters in Providence, R. I., and branch offices in New York, Boston, Philadelphia, Charlotte, Columbus and Greenville, have recently added Philip Lavoie to their staff as technical demonstrator of their various sizing, printing and finishing specialties.

Mr. Lavoie is exceptionally well fitted to act in this capacity to the following experience: 1906-1927—superintendent of all finishing departments for Mount Hope Finishing Co.; 1928-32—plant manager for Imperial Printing and Finishing Co.; 1933-34—U. S. Finishing Co. contact man for all plants with the New York trade on viscose and acetate rayon and cotton printing; 1934-36—general plant superintendent of Lincoln Bleachery and Dye Works; 1936-39—demonstrator and salesman on wool finishing and scouring for Arkansas Co.

Mr. Lavoie will make his headquarters in the Providence office of Arnold, Hoffman & Co., and will travel throughout the South.

Institute Members Discuss Tax Matters At Charlotte

Approximately 125 members of the Cotton Textile Institute, their auditing advisers, and legal advisers, attended a meeting May 25th at Charlotte, sponsored by the Institute:

The general purpose of the meeting, as defined by George Rogers, Washington counsel for the Institute, was to study processng tax and unjust enrichment tax matters affecting the industry.

Mr. Rogers further stated "the reason for the meeting was to get some common basis mutually satisfactory to the manufacturers and to the Department of Internal Revenue of the Treasury Department in order to make it unnecessary for mill owners to waste energy on irrelevant tax matters.

Two main topics were discussed by the members, the discussions being led by Mr. Rogers and John K. Watson, New York counsel for the Institute. They were:

1. The proper computation of the margin of profit or loss in the textile industry.

2. Experience of different types of cotton mills with "absorption" of the processing tax in the years 1933-35 inclusive.

Mr. Rogers said it will be for the benefit of the mill owners completely to understand all matters relating to the processing tax and the unjust enrichment tax, also called the "windfall tax."

A few of the attending members also were at a similar meeting held in Atlanta May 23rd.

Mr. Rogers is a member of the law firm of O. Max Gardner in Washington.

Mills Authorized To Finish With "Zelan"

The Fine Chemicals Division of the du Pont Company announce the following mills in the South are prepared to finish fabrics with the "Zelan" repellent finish and are authorized to employ the identifying trade-mark: Fairforest Finishing Co., Spartanburg, S. C.; Sayles Finishing Plants, Inc., including plant at Biltmore, N. C.; Union Bleachery, Greenville, S. C.

According to the announcement, most of the fabrics treated with "Zelan" have been consumed by the rainwear and sportswear trades. It is said that interest is developing in ready-to-wear, especially in such fabrics as crepes, chiffons and velvets. First "Zelan" treated dress lines are now making their appearance in stores.

Coming Textile Events

JUNE 1-2

Cotton Manufacturers' Association of South Carolina, Annual Convention, High Hampton Inn, Cashiers, N. C.

JUNE 16-17

Southern Textile Association, Annual Convention, Ocean Forest Hotel, Myrtle Beach, S. C.

JUNE 23-24

Piedmont Section, American Association of Textile Chemists and Colorists, Annual Outing, Myrtle Beach, S. C.

OBITUARY

EMSLIE NICHOLSON

Union, S. C.—Emslie Nicholson, 76, South Carolina textile executive and industrialist, died May 22nd in a Vero Beach, Fla., hospital.

Mr. Nicholson, who retired from active management of the Monarch Mills' three textile plants here and at Lockhart May 9th, left that night for Florida for a change and rest.

Mr. Nicholson entered banking business with his father 50 years ago and later organized the Nicholson Bank & Trust Co. He was president of Bank of Buffalo at the time of his death.

His industrial career began when he organized Excelsior Knitting Mills in 1896. He became president after the death of his father the following year. He served as vice-president and treasurer of the Monarch Mills group since 1907, when the organizer of Monarch Mills, the late John A. Fant, died. He was also director of numerous industrial and other corporations.

Mr. Nicholson was born in Union, son of the late William A. Nicholson and Rebecca E. Nicholson. His father was born in Aberdeen, Scotland, and his mother in London, England. As a young boy, he attended Bingham School at Mebane, N. C., and was graduated from Davidson College in 1884.

I'm a professional "trouble-shooter." If you feel that maintenance costs on your company houses and plants are too high, let me try to bring them down. As field man for the National Lead Co. (manufacturers of the famous Dutch Boy White-Lead) I've been able to eliminate waste from many painting budgets.

When a mill calls me in, my first move is to come and make a personal check-up of all painted surfaces on company property. Then I work out a plan for repainting, listing which surfaces should be done immediately and which can wait. Finally I recommend special paint formulas designed to give you the longest service at rock-bottom cost. These formulas take into consideration the climatic conditions, type of surface, and all other factors that effect the wearing qualities of the paint.

In every case, the paint is mixed to order with Dutch Boy White-Lead. This gives you three basic economies. (1) Dutch Boy lasts longer—gives more years of service. (2) Dutch Boy wears down smoothly. At repaint time there is no old scaling paint to be burned off at great expense. (3) Since the Dutch Boy surface is intact, no new priming coat is required in repainting.

• • •

My Proposition: I'll be glad to inspect your property and give you a complete report. No charge or obligation. Just write to any of the addresses below and say when.

NATIONAL LEAD COMPANY
111 Broadway, New York, N. Y.
659 Freeman Avenue, Cincinnati, Ohio
•
Philadelphia Branch
JOHN T. LEWIS & BROS. CO.
Widener Building, Philadelphia, Pa.

Southern Textile Association Convention Plans Completed

PLANS have been completed for the annual convention of the Southern Textile Association, to be held at the Ocean Forest Hotel, Myrtle Beach, S. C., on June 16th and 17th. Reports from the hotel indicate that reservations are coming in fast, and a large attendance is anticipated. Approximately 200 reservations have already been made.

Associate Members Annual Banquet Thursday Evening

Plans for the annual banquet of the Associate Members' Division of the Southern Textile Association are practically complete, according to William H. Randolph, Jr., chairman, and H. B. Rogers, vice-chairman, of the Division. The banquet will be held in the dining room of the Ocean Forest Thursday evening, June 15th, preceding the opening of the Association's two-day convention.

The chief entertainment feature will be a professional floor show, headlining a number of singing and dancing stars. There will not be any prepared addresses, and the only business scheduled to be transacted is the election of officers for the ensuing year. Following the dinner, there will be a dance for members and their guests on the patio.

Officers and members of the Board of Governors of the Southern Textile Association have been invited by Chairman Randolph to be guests of the Division at their banquet, and all active members and their wives, who arrive at Myrtle Beach in time for this event, will be cordially welcomed. Advance registrations at the Ocean Forest indicate that quite a large number of mill men will reach there Thursday.

The Associate Members' Division, which is composed of Southern representatives of textile mill equipment and supply manufacturers, contribute prizes for the Association golf tournaments and other contests, and attractive prizes have been secured for the events this year.

Permanent trophies awarded winners in the golf tournament each year include cups donated by Corn Products Refining Company, The Charlotte Textile Club, and TEXTILE BULLETIN.

Opening Session

The convention will be formally opened Friday morning, June 16th, at 10 o'clock. After the opening formalities L. J. Rushworth, of Danville, Va., will deliver the annual address of the president.

The next speaker on the program will be H. H. Willis, Dean of the Textile School at Clemson College, Clemson, S. C., who will talk on a subject that is intensely practical and valuable to every mill man.

Following Mr. Willis will be Dr. E. R. Schwarz, Professor of Textile Engineering at Massachusetts Institute of Technology, Cambridge, Mass., who is nationally recognized as one of the leaders in textile research in this country. He is chairman of the Board of Editors for *Textile Research*, publication of the United States Institute for Textile Research.

Friday Afternoon Sports

The convention will not be in session Friday afternoon, and the time will be devoted to various contests and sports. The principal event will be the annual golf tournament, the winners of which will be awarded handsome prizes.

Other contests during the afternoon include a set-back tournament, bridge tournament, horseshoe pitching, and a soft ball game between a team of mill men and a team of salesmen. Prizes will be awarded the winners of each contest.

Annual Banquet

The feature of the annual banquet will be the presentation of prizes to the winners of the various contests, and the drawing for attendance prizes by the ladies.

An excellent floor show has been obtained for the banquet, which will be even better than the one at Blowing Rock last year, which made quite a hit.

Saturday Morning Session

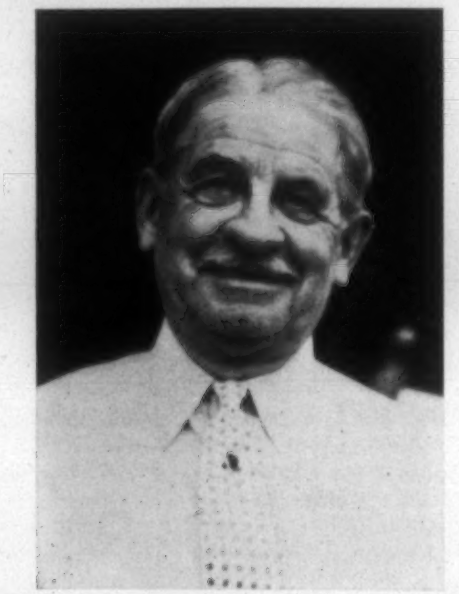
The final session of the convention will be held on Saturday morning, June 17th, with Dameron Williams, of Gastonia, as the first speaker. Mr. Williams' talk will be on "Cotton," and will include remarks on the determination of "character" in cotton and its effect on the spinning value of the cotton.

The final address of the convention will be made by Sylvester Green, president of Coker College, Hartsville, S. C., who will speak on "Human Relations." Mr. Green is an exceptionally good speaker.

Following the speakers the annual business session and election of officers will be held, after which the convention will be over.

Celebrates Sixtieth Year in Starch Business

"Probably few other men in the world hold the record of which W. H. Randolph, Sr., of our New York office, is so proud," states a feature article devoted to the interesting career of this veteran sales representative, appearing in the May issue of the *Staley Journal*, house organ of the A. E. Staley Manufacturing Company.



"This spring he is celebrating his sixtieth year in the starch business," continues the article, "and Senior isn't the only one who is proud of that record. The Staley Company beams with pride whenever he is mentioned."

"Senior" Randolph, who was "working" New York when the highest structure in the city was the Trinity Church spire, is the father of "Bill" Randolph of Atlanta, Staley's Southeastern Division manager, and chairman of the Associate Members Division of the Southern Textile Association.

Mr. Randolph lives in Rahway, N. J., the town that had been the home of the Randolphs for two generations before his birth. He has never thought of retiring and is still active out on the firing line.

Cotton Book Issued By Institute

The many intricate processes through which cotton goes before it becomes fabric are adequately explained in non-technical terms in a book issued by the Cotton Textile Institute.

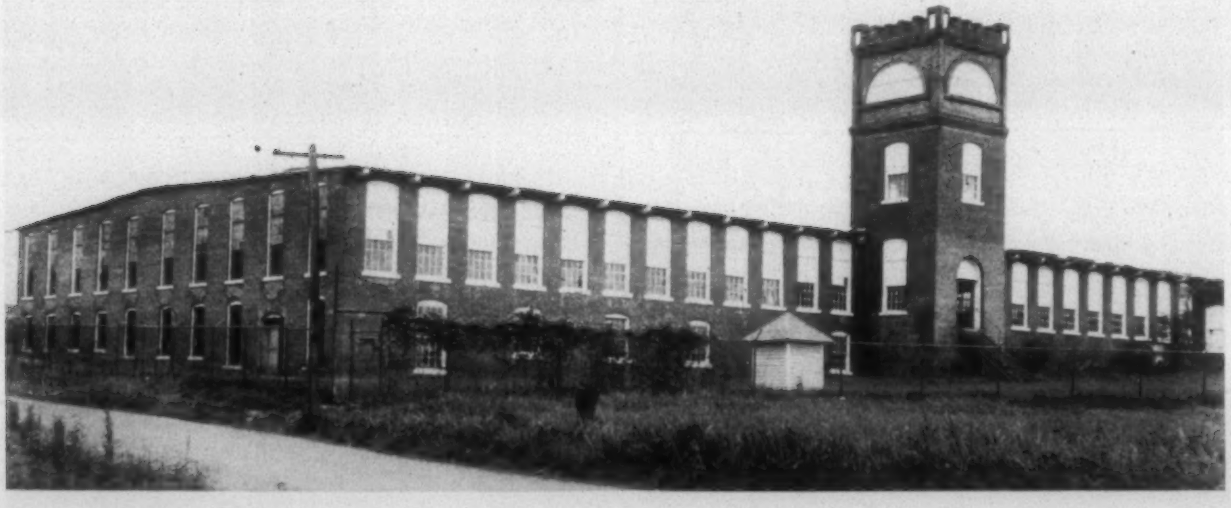
The book is written primarily to appeal to the student or layman who desires a general knowledge of the art of finishing cotton cloths.

Every phase of the process is explained in general terms.

Swatches of the various grey goods and finished goods are shown in the back of the book to facilitate the identification of standard fabrics.

The book makes excellent reading for those who are not already acquainted with the details of the processes. The price is 60 cents per copy.

MILL BUILDING FOR SALE
Concord, N. C.



Standard Mill Construction, 122x205 feet, not including small adjoining rooms.

Also basement 20x85. Building and basement are sprinkled. Equipped with modern lighting and humidifying equipment and piped for heating. Excellent supply of experienced textile employees. Located a short distance from two full fashioned hosiery mills. Will be sold at reasonable price.

John W. Clark, Receiver, Locke Cotton Mills, Concord

Personal News

P. P. Herman is secretary and treasurer of the Star Hosiery Mills, Conover, N. C.

Robert Smith, of the West Point Mfg. Co., recently spoke at the Auburn Textile School on the designing and weaving of towels.

C. M. Griffin, president of the Golden City Hosiery Mills, Villa Rica, Ga., has been elected president of the Villa Rica Civitan Club.

F. M. Inman has resigned as overseer of carding and spinning at the Pee Dee Manufacturing Company, Rockingham, N. C.

D. W. Anderson was re-elected president of Judson Mills, Greenville, S. C., at the recent meeting of the concern.

W. B. Williams, formerly overseer of weaving at Gossett Mills, Anderson, S. C., is now assistant professor of weaving and designing at Clemson Textile School.

James Breakall, chief engineer at the Roanoke, Va., plant of the American Viscose Corp., has been elected president of the Roanoke Lions Club.

LeRoy H. Smith, manager of the Roanoke, Va., plant of the American Viscose Corp., has been elected to serve as a member of the Roanoke School Board.

John C. Roberts, Gastonia, N. C., textile executive, has been elected Commander of Gaston Post, No. 23, of the American Legion.

Jack McCarver has resigned his position with Mill Devices Co. to accept the position of traveling representative for Kempton Parts & Spring Co., Gastonia, N. C.

Walter Dillard, Jr., vice-president and general manager of the New Braunfels (Tex.) Cotton Mills, has been appointed a member of the Texas Prison Board.

Albert Marriott, formerly of Bloomfield, N. J., has been named superintendent of the Salem (Va.) Full Fashioned Hosiery Mills, Inc.

W. R. Banes has been promoted from a section to second hand of night spinning at the Greenwood Cotton Mills, Greenwood, S. C.

John C. Markham, Jr., of the Granite Falls Mfg. Co. office at Granite Falls, N. C., will be married to Miss Eudora Elizabeth Dover, of Rock Hill, S. C., in June.

A. H. Hamilton, formerly of Laurinburg, N. C., has accepted the position of overseer of carding and spinning at the Pee Dee Manufacturing Company, Rockingham, N. C.

B. Z. Kennimore, formerly of the Hazel Knitting Mills, Burlington, N. C., has accepted the position of superintendent of the Star Hosiery Mills at Conover, N. C.

C. B. Shoemaker has been appointed manager fo the Nitro, W. Va., plant of the American Viscose Co. Mr. Shoemaker was formerly assistant manager of the Parkersburg, W. Va., plant of the company.

Baron Groves has resigned his position with the Oakboro (N. C.) Cotton Mills to become superintendent of the Peerless Spinning Corporation, Lowell, N. C. He is a graduate of N. C. State College.

P. P. Murphy, for the past 32 years superintendent of the Peerless Spinning Corporation, Lowell, N. C., has resigned that position to devote his entire time to his duties as president of the United Spinners Corporation.

Henry Hand Rankin, who for the past eight years has been with the Cannon Mills, has been made superintendent of South Fork Manufacturing Co., Belmont, N. C., succeeding W. J. Pharr, resigned.

George L. Dozier, Alabama-Georgia representative of the Sandoz Chemical Works, was a recent speaker at Auburn (Alabama Polytechnic Institute) under the auspices of Phi Psi, Textile Fraternity.

Cason J. Callaway, former president of Callaway Mills, LaGrange, Ga., will be awarded the honorary degree of Doctor of Laws by Presbyterian College, Clinton, S. C., on June 5th, according to a recent announcement.

A. B. Cobb, general superintendent of the Gambrill Mills, Bessemer City, N. C., and Mrs. Cobb observed their golden wedding anniversary at their colonial home, "Seven Oaks," in Kings Mountain, N. C., recently.

J. C. Moxley has been elected president of the newly formed Grayson Full Fashioned Hosiery Mill, Independence, Va. E. F. Elliot has been elected vice-president and B. M. Todd, secretary-treasurer.

W. C. Bradley, chairman of the board of Eagle & Phenix Mills, Columbus Manufacturing Company, and Bradley Manufacturing Company, Columbus, Ga., has been elected chairman of the advisory committee of the Coca-Cola Company.

Mrs. J. D. Turner of Atlanta, Ga., widow of J. D. Turner, president of the Exposition Cotton Mills from 1885 to 1909, the time of his death, and a past president of the Georgia Cotton Manufacturers Association, recently celebrated her 95th birthday. Mrs. Turner, who is also the grandmother of John Turner, of Atlanta, well known Chas. Bond Company representative, is the oldest living member of the First Presbyterian Church of Atlanta. She resides at 239 Peachtree Circle.

Stuart W. Cramer, president of Cramerton (N. C.) Mills, has been re-elected treasurer of the Textile Foundation.

C. R. Barton has resigned as assistant professor of weaving and designing at Clemson Textile School to accept a position with Industrial Rayon Corporation of New York City.

Hulet L. King, Jr., Auburn Junior in Textile Engineering, from Huntsville, Ala., has been named as one of 30 college students to attend the six weeks of summer training in dyeing by the Ciba Co., at the New York Laboratories.

C. F. Smith, formerly superintendent of the Elizabeth James Hosiery Mill at Marion, N. C., is now president and manager of the Josephine Mills, the corporation which acquired the properties of the Elizabeth James Hosiery Mill.

R. Carter Nyman, personnel director of The Kendall Co., Paw Creek, N. C., has been appointed personnel director of members of the service staff and clerical assistants at Yale University. He will take over his new duties on July 1st.

W. H. Shuford, former Hickory, N. C., hosiery manufacturer, has been elected president of the Farmers and Merchants Bank of Newton, N. C., succeeding his brother, A. L. Shuford, Sr., who was made chairman of the Board.

C. A. Rudisill, N. C. State College Alumnus and secretary and treasurer of the Carlton Yarn Mills, Inc., and Nuway Spinning Company, and treasurer of the Howell Manufacturing Company, Cherryville, N. C., was recently initiated into Phi Psi, honorary textile fraternity, at N. C. State College.

Miss Virginia R. McCarvey, daughter of J. E. Mc Carvey, asssistant superintentend of the Griffin Mills, Griffin, Ga., graduates with high honors this year at the Griffin High School. Miss McCarvey, who was elected valedictorian of her class has been awarded a scholarship to the Georgia State College for Women.

FOR SALE

41 Saco-Pettee Spinning Frames, 224 spindles, 1⅞" rings.

20 Whitin Spinning Frames, 224 spindles, 1⅞" rings.

Receiver, Locke Cotton Mills
Concord, N. C.

CLINTON STARCHES

FOR ALL
TEXTILE PURPOSES

Manufactured by
Clinton Company
CLINTON, IOWA

QUALITY SERVICE

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LOOM PICKERS and
LOOM HARNESSES
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HOUGHTON WOOL TOPS
Prompt Shipment All Grades on Short Notice
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Textile Golf Tournament

ENTRY BLANKS for the First Annual Textile Golf Tournament which is to be held at the Carolina Golf Club, near Charlotte, N. C., on June 9th, 10th and 11th, have been coming in and we feel certain that there will be a large field of both mill men and machinery and supply salesmen.

The first two mill men to enter were J. W. Clark, overseer of carding at the Clyde Fabrics Mill, Newton, N. C., and R. F. Bumgardner, loom fixer at the National Weaving Co., Belmont, N. C.

Among the mill officials entered are T. W. Church, secretary of the Highland Park Mfg. Co.; F. Frank Jones, purchasing agent for the Chadwick-Hoskins Co., and Newt G. Hardie, general superintendent of the same company. We have assurances from several mill presidents that they will enter.

Up to the present time we have not received the entrance blanks for any large number of salesmen but many have assured us that they will enter.

The following have notified us that they will enter four players and compete for the team prize which has been offered by the American Cotton Manufacturers' Association.

Highland Park Mfg. Co.
Chadwick-Hoskins Co.
Cramerton Mills.
Kendall Company.
National Weaving Co.
Republic Cotton Mills.
Proximity Mfg. Co.

Those who play upon a mill team will also be playing in the tournament and each will, on Saturday morning, be placed in the flight to which his score entitles him.

The medal score of the four team players in their qualifying round will be added together and the team having the lowest total of the four scores will win the cup.

To Enter Tournament

PERSONS ELIGIBLE: Any man actively connected with a plant manufacturing or finishing goods or yarns of cotton, rayon, silk or wool; also manufacturers of hosiery and other knit goods. Such persons may be officials, office employees or connected with manufacturing departments. Superintendents, overseers, master mechanics, loom fixers, speeder tenders, or those employed by the mills in any capacity will be welcome.

Also eligible are persons actively engaged in the manufacture or sale of machinery, equipment or supplies to mills of persons listed above.

QUALIFYING AND PLAYING: Textile manufacturers may play qualifying rounds with representatives of machinery and supply manufacturers but after the qualifying round the two groups will be divided. Players will qualify in threesomes and start at intervals of 5 minutes on Friday, June 9th, unless they have qualified on Thursday, June 8th.

MATCH PLAY FLIGHTS: The textile manufacturers will be divided into flights of eight according to qualifying round scores. In case two or more tie for the last places in a flight, they will be placed according to their scores upon the first three holes; that is, where two men make the same score the one having the lowest total for the first three holes will be given prior rating. The first round matches will be played Saturday morning, second round matches Saturday afternoon and finals on Sunday, June 11th. *There will be no consolation flights.* Representatives of machinery and supply manufacturers will be grouped and will play in like manner but textile manufacturers will be given preference assignments and if the number of players is too large for the Carolina Golf Club

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Mail This Entrance Slip With Fee to Clark Publishing Co., Charlotte, N. C.

TEXTILE GOLF TOURNAMENT

Carolina Golf Club, Charlotte, N. C., June 10th and 11th, 1939

CLARK PUBLISHING CO., Charlotte, N. C.

You may enter the undersigned in the above Tournament. Entrance Fee of $2.00 is enclosed.

I prefer to qualify

THURSDAY about .... o'clock   FRIDAY about .... o'clock

Name .... Mill ....

Position .... City ....

Money Will Be Refunded if entrance is cancelled on or before June 8th) course, the machinery and supply representatives may be assigned to play their matches at the Hillcrest or Sharon Golf Courses at Charlotte.

PRIZES: There will be a winners' prize and a runner-up prize for each flight of eight, whether the flight be composed of textile manufacturers or of machinery and supply representatives. Some of the prizes will be of silver while others will be golf equipment.

SPECIAL PRIZES: The TEXTILE BULLETIN will provide a large cup upon which the name of winner of the first or championship flight of textile manufacturers will be engraved. The cup will be placed upon a pedestal in the office of the TEXTILE BULLETIN but the champion will be given a replica of same:

Other special prizes will be:

For low medal in qualifying round (textile manufacturers). (This prize will be a cup given by Falls L. Thomason, Southern Agent, the N. Y. & N. J. Lubricant Co.)

For low medal in qualifying round (machinery and supply representatives).

For least number of putts in qualifying round (textile manufacturers). (This prize will be given by the National Ring Traveler Co.)

For least number of putts in qualifying round (machinery and supply manufacturers).

For any player making a hole-in-one, a prize of $25.00.

TEAM MATCHES: Any textile manufacturing establishment may enter a team of four players who must be designated prior to entering the qualifying round. The team having the lowest total of the four medal scores in the qualifying round will be given a silver cup donated by the American Cotton Manufacturers' Associaton, and with the name of the mill and the names of the players engraved thereon. No man may play upon the team of a textile manufacturing establishment unless he was an employee of such establishment on March 1, 1939, and has continued in such employment since that date.

STARTING ASSIGNMENTS: Those expecting to enter the Textile Golf Tournament should file their entry blank accompanied by the $2.00 fee and specify the starting time desired.

Robert O. Arnold Heads Georgia Cotton Manufacturers

Robert O. Arnold, treasurer of Covington Mills, Covington, Ga., was elected president of the Cotton Manufacturers' Association at the annual convention at Sea Island, Ga., on May 25-26.

Other officers elected at the meeting include John A. Miller, president of Exposition Cotton Mills, Atlanta, vice-president; George P. Swift, vice-president of Muscogee Mfg. Co., Columbus, treasurer; T. E. Forbes, Atlanta, re-elected secretary.

Directors elected to serve three-year terms to 1942 were as follows: Frank M. Arnall, president of Arnall Mills, Sargent, Ga.; R. Donald Harvey, agent Pepperell Mfg. Co., Lindale, Ga.; Julian T. Hightower, vice-president, Thomaston Cotton Mills, Thomaston, Ga.; D. A. Turner, president, Columbus Mfg. Co., Columbus, Ga.

Scott Russell, executive vice-president of Bibb Mfg. Co., Macon, Ga., was elected to fill the unexpired term of W. D. Anderson, president of the Bibb Co., who resigned his association directorship during the year. S. H. Swint, president of the Sibley Enterprise Co., Augusta, Ga., was elected to the unexpired term of Lanier Branson, who also resigned his directorship during the year.

Prior to the election of new officers, the resgnation of R. Hill Freeman, of Newnan, Ga., former vice-president of the association, and in line for the presidency this year, was read to the convention by J. A. Miller, chairman of the resolutions committee. Mr. Freeman has been in ill health for more than a year.

S. L. Diggle Again Chosen President Of Carolina Yarn Group

Charlotte, N. C.—S. L. Diggle, Dixie Mercerizing Co., was re-elected president of the Carolina Yarn Association at the recent annual meeting at the Charlotte Country Club here.

Karl Ginter, Industrial Dyeing Corp., was chosen vice-president; Penn Wilson, R. K. Laros & Co., treasurer, and H. T. Cosby, Cosby & Thomas, secretary.

The following won prizes in the golf tournament: First low net, Jack Holbrook; first low gross, S. L. Diggle; second low net, H. T. Cosby; second low gross, Bill Yates; third low net, P. H. Thompson; third low gross, Fred Sails; fourth low net, John Sherrill, and fourth low gross, Fred Lemmond.

Attendance prizes were awarded to C. W. Causey, Jr., and Penn Wilson.

Patents Granted Carolinians

Textile patents again predominate in recently issued patents, according to Paul B. Eaton, patent attorney, of Charlotte, N. C.

E. A. Hill of Greenville, S. C., was awarded a patent on a beam lock for looms wherein an adjustable member is mounted on the beam holding bracket and the beam holding bracket has an upwardly and outwardly extending neck, on which this adjustable member is mounted by a bolt and slot connection, and the neck has a set screw therein for holding the retaining member in position.

William H. Bahan of Greenville, was awarded a patent on an eccentric connection for connecting the pitman rod and the loom sword together. This comprises an eccentric bolt with a plurality of cavities so as to hold the eccentric bolt in adjusted position to thereby take up excessive play between the pitman and the sword, and to adjust the overall length between the crank shaft and the sword.

Grocer C. Queen of Pomona, N. C., was awarded a patent on an alarm device which is installed in a pipe line for detecting leaks or escaping fluid from the pipe due to freezing of any condition which might effect the flow of the liquid therein. It is particularly adapted to be used in conjunction with automatic wet sprinkling systems for sounding an alarm.

TEXTILE BULLETIN

Member of

Audit Bureau of Circulations and Associated Business Papers, Inc.

Published Semi-Monthly By

CLARK PUBLISHING COMPANY

Eastern Address: P. O. Box 133, Providence, R. I.

Offices: 218 W. Morehead St., Charlotte, N. C.

David Clark - - - - President and Managing Editor
Junius M. Smith - - Vice-President and Business Manager
Ellis Royal - - - - - - - - - Associate Editor

SUBSCRIPTION

One year payable in advance	$1.50
Other Countries in Postal Union	3.00
Single Copies	.10

Contributions on subjects pertaining to cotton, its manufacture and distribution, are requested. Contributed articles do not necessarily reflect the opinion of the publishers. Items pertaining to new mills, extensions, etc., are solicited.

Are Brokers Needed?

The following is a reprint of a letter which we received on May 22nd from Howard Veit, vice-president of M. Lowenstein & Sons, Inc., of New York:

> My attention has been called to the article appearing in your publication, March 1st issue, page 19, headed, "NO JUSTICE." I think, instead, it should have been headed, "NO BRAINS," for if there is an industry in which the lack of brains is more apparent than in this one, I don't know where it may be found.
>
> The real cause of selling prices declining below costs in the cotton industry is the asinine method of producing goods without regard for the cardinal law of supply and demand, but purely with a speculative hope that when the goods are available the market will be higher.
>
> There is no law which dictates to any man how much of his own money he may want to lose, nor is there a law which dictates how much money belonging to the stockholders of a company may be lost by the incompetence of the men who are charged with the care of their funds.
>
> Brokers do not make prices nor do they force a man who owns merchandise to make a price he doesn't want to make, and further, in justice to the brokers, I might add that they are not a pregnant force in the creation of a purchasing movement. Some mills and commission houses, by their own greed and stupidity, are guilty of selling goods to people who are not legitimate purchasers and who do not have any reason to buy goods other than with a speculative idea that they might make a profit because of a rising market, and until makers and sellers of grey goods revise their own methods and ideas as to whom they should or should not sell, this speculative condition will not correct itself.
>
> It is common knowledge that most commission houses have conscientiously endeavored to have their mills curtail production, knowing that it was essential to the well being of the industry that production be brought into line with demand—so far, there is no curtailment.
>
> The print cloth mills are at no one's mercy, except their own, and any time they see fit to correct the situation they are complaining about, they have the means and method of doing it.
>
> I might also point out that I know of no law that will prevent a mill from selling its own product and if their complaints against commission houses are really serious, why don't they organize for the purpose of selling their own product, unless the answer is economy and efficiency of the selling organizations which they now use.
>
> It is peculiarly true that when a part of an industry is unable to earn a profit, every correlated part of the industry finds itself in the same position. So, buyers of grey goods would be better off, by far, in their own ability to make a profit if their sources of supply were making a profit on their sales. No sane business man ever tries to profit by the loss of another—he much prefers to see his sources of supply earn a legimate profit.

This letter, coming, as it does, from one of the largest converters and therefore one of the largest buyers of grey goods, is worthy of serious consideration, but we must take issue with Mr. Veit upon one or two of his statements:

Mr. Veit says:

> There is no law which dictates to any man how much of his own money he may want to lose, nor is there a law which dictates how much money belonging to the stockholders of a company may be lost by the incompetence of the men who are charged with the care of their funds.

Selling at a low price is not always due to incompetence. A man with a product to sell is under considerable handicap when he tries to obtain more than the market price no matter how that market price has been made.

Mr. Veit also says:

> The print cloth mills are at no one's mercey, except their own, and any time they see fit to correct the situation they are complaining about, they have the means and method of doing it.

Print cloth mills are at the mercy of other print cloth mills, especially those which are willing to sell goods at low prices, or operate three shifts when there is already a surplus of goods upon the market, and also at the mercy of any group of men who manage in any way to establish low prices as the market.

In our editorial of March 1, 1939, we said:

> A group of men, called brokers, but whose real names should be "buyers' agents," go from commssion house to commission house hammering down prices and it is said that some of them do not hesitate to misrepresent the prices which have been offered them.
>
> It is stated that in the space of a morning one of these brokers can often work prices down ⅛ by visiting the selling agents in rotation.
>
> He gets a price of ¼ at one house and by stating that he is offered goods at ¼ gets the next house to make a

price of 3/16. Before he completes the circuit he finds some house which, rather than lose the business, will cut another 1/16 and sell at ⅛.

When these brokers feel that prices are at rock bottom they advise their customers to buy considerably in excess of their needs and then when prices do advance "sales by second hands," at less than the prices of mills, is used to again break prices.

We do not blame converters and consumers of cotton goods from buying at the lowest prices which they can obtain, but we do condemn the present system under which a large portion of gray goods sales are made through brokers.

In order to put the situation squarely before the cotton textile industry we give the following questions and answers:

Question: What is a cotton goods broker?

Answer: He is a man who sells cotton goods and receives a fee or commission.

Q.: For whom does he sell goods?

A.: The selling agents of mills.

Q.: By whom is his fee paid?

A.: By the selling agents.

Q.: To whom does he sell goods?

A.: Converters or merchants.

Q.: Do they pay him a commission?

A.: No; he is paid by the selling agents out of the fixed commission which they receive from the mills they represent.

Q.: Do brokers sell direct for mills?

A.: In a few cases but they usually act as salesmen for selling agents.

Q.: Do they take any responsibility for payment of goods or the quality of same.

A.: No; those responsibilities are retained by the selling agents and the mills.

Q.: Upon whom does a broker depend for the volume of his business and therefore the volume of his brokerage fees?

A.: Converters and merchants.

Q.: What would be the effect of obtaining a lower price than that demanded by the mills?

A.: It would place the broker in favor with those from whom he must secure future orders.

Q.: Whose interests are primarily the brokers interests?

A.: Those of the buyers.

We believe that the above questions and answers truthfully depict the status of brokers.

They are in business and it will be natural for them to defend their system of operations and attempt to justify same but we, being interested in the welfare of cotton mills, regard them as an unnecessary evil.

Unnecessary because selling agents for mills can employ salaried men to do the selling.

An evil because it is to their interest to secure the lowest possible prices for the buyers and it is well known that they frequently work prices down while making the rounds of the selling agents.

Having recently attended several meetings of cotton manufacturers, we feel that there is a very definite determination to bring about some revision of the present system of selling cotton goods.

It seems to us that the first step should be to eliminate the actual sale of goods by persons who have a greater interest in the buyer than in the seller.

We feel that selling agents should sell the goods produced by their mills and should cease to sell any goods through brokers.

The elimination of brokers will not reduce the sale of cotton goods because the brokers do nothing which tends in any way to increase the consumption of cotton goods.

Southern Textile Association Meeting

Reports indicate that the meeting of the Southern Textile Association at Myrtle Beach, S. C., on June 16th and 17th will be well attended. Up to May 27th the hotel had already booked reservations for 180 and which is a very satisfactory number of advance reservations that far in advance of the meeting.

Secretary B. Ellis Royal has prepared an excellent program which includes speakers of outstanding ability.

Textile Golf Tournament

It is difficult to say what number of mill men and machinery and supply salesmen will play in the First Annual Textile Golf Tournament which will be held at the Carolina Golf Club, Charlotte, N. C., June 9th, 10th and 11th, but it appears that there will be a large field.

The first mill man to send in his entrance fee was an overseer of carding from Newton, N. C., and the second was a loom fixer from Belmont, N. C. At least seven mills will enter teams of four players each in competition for the team cup prize.

We will be pleased to answer letters of inquiry from those who do not understand the details of the tournament.

Mill News

Orange, Va.—More than 100 business leaders turned out at Orange for a banquet marking the tenth anniversary of the American Silk Mills here.

Lumberton, N. C.—The Mansfield Mills, Inc., of this place, has closed down temporarily due to market conditions, according to a recent news dispatch.

Conover, N. C.—The Star Hosiery Mills, which were recently organized for this place, have completed their building and are now installing full-fashioned machines. They will have 8 45-guage Reading machines. P. P. Herman is treasurer and B. Z. Kennimore is superintendent.

Maxton, N. C.—A charter has recently been granted to Maxton Textile Corporation to manufacture textiles, with $100 of $100,000 authorized capital stock subscribed by W. F. Renner, C. A. Hasty, J. B. McCallum, Jr., and T. O. Evans, all of Maxton.

Asheboro, N. C.—Construction work has begun on the Mid-State Box Manufacturing Company plant on North Park street. Thi snew Asheboro industry is headed by E. O. Schaefer, who was formerly general manager of the Old Dominion Box Company.

Bessemer City, N. C.—Fire caused damage estimated at between $32,000 and $35,000 to the American Utilization Company's warehouse here May 25th.

Max Goldberg, official of the company, said the building was packed with 2,500 bales of waste and reconditioned cotton valued at $30 to $40 a bale.

Raleigh, N. C.—The old mill village at the Falls of Neuse has been sold to Neuse Properties, Inc., of New York, which corporation will use the machinery for reconditioning and scrap purposes. It is not likely that the mill will be put back into operation.

Included in the sale, which has been estimated at approximately $15,000, is the mill buildings, their machinery, and 10 tracts of land around the village. Don P. Johnston was receiver for the Neuse Manufacturing Co.

Gonzales, Tex.—The Gonzales Cotton Mill, closed for more than six years, has been reopened recently, and is now in full operation, with 180 looms producing cotton duck.

Preparations for renewing operations have been under way for several months, and the mill, originally designed for steam operation, is now equipped for full operation on electricity.

Officers of the mill are: Ross Boothe, president; H. M. Ainsworth, vice-president; S. M. Ainsworth, treasurer; and Fred Boothe, secretary.

J. R. Compton is superintendent, S. E. Ervin is overseer of carding and spinning, and Leland Lapp is master mechanic.

Martinsville, Va.—Ground has been broken on a valuable addition to the Sale Knitting Company, on Moss street, to provide 17,500 additional square feet of floor space, to bring the firm's production space to 47,000 feet.

Chilhowie, Va.—The Town House Mfg. Co., manufacturers of full-fashioned hosiery, has begun operations, with two machines in operation. When completed, the mill will have 13 full-fashioned machines, including ten leggers and three footers.

Burlington, N. C.—Excavation has been started preliminary to the construction of a three-story addition to the May Hosiery Mill, which officials indicated will cost at least $20,000.

The addition is to be constructed at the corner of Main and Morehead streets.

Hickory, N. C.—A court order has been signed authorizing the sale of the Henderson Hosiery Mills, of this place, which was placed in receivership some time ago.

The petitioning creditors are Knott Hosiery Mill, of Hickory, Caldwell Hosiery Mill, of Granite Falls, Earl Newton, of Hickory, Seigel-Kahk, Inc., of New York, and Isenhour Hosiery Mill, of Newton.

Lynchburg, Va.—At the local plant of the Consolidated Textile Corp., the scheduled reopening on May 29th was postponed until market conditions justify such an opening, according to an announcement.

I. L. Langley, vice-president, announced that the reopening was postponed on account of "unsatisfactory market conditions with cloth prices lower and cotton higher than a month ago when the mill closed."

Marion, N. C.—Josephine Mills, of this place, have been granted a charter to manufacture hosiery, yarns, and knit goods. Carter Hudgins, M. H. Witherspoon and Charles F. Smith, all of Marion, subscribed $7,500 of the authorized $50,000 capital stock.

This corporation will take over and operate the properties of the Elizabeth James Mill No. 1, now undergoing liquidation by C. F. James.

Hartsville, S. C.—The Hartsville Print and Dye Works, of this place, has been granted an extension of time until July 20th to file a plan of reorganization under Section 77-B of the Bankruptcy Act by Judge Frank K. Myers, of Charleston, S. C.

This action was taken in the form of a denial of a petition of a bondholders' committee to dissolve an injunction restraining foreclosure of a lien on assets of the company, in which it was stated that the plant was operating at less efficiency than its principal competitors, and that continuation of operations under present conditions endangered the security of the bondholders.

MASTER MECHANICS' SECTION

Master Mechanics Discuss Industrial Lighting and Welding

THE spring meeting of the Southern Master Mechanics Division of the Southern Textile Association was held at the Parker District School, Greenville, S. C., on Saturday morning, May 20, 1939, with the Chairman of the Division, Van W. Kay, Master Mechanic of the Judson Mills, Greenville, presiding. After the call to order, the meeting was opened with a prayer by H. H. Iler, plant engineer of the Union Bleachery, Greenville. Loui Greet, vocational director of the Parker District School, briefly welcomed the members. A stenographic report of the meeting follows:

Chairman Kay: Gentlemen, we have with us this morning G. E. Park, of the General Electric Company, Charlotte, who is going to give us a demonstration on lighting. That is a subject of interest to us all. I present Mr. Park.

New Industrial Lighting

G. E. Park, District Engineer, General Electric Company, Charlotte, N. C.

Mr. Chairman, members of the Master Mechanics Division, and friends, it is always a very great pleasure for us to meet with you folks.

We are very glad to talk about the new light source—fluorescent lamps—and of the way in which they meet your needs and how they generate light. I have a rather carefully prepared talk here, but I think I shall just forget it and visit with you this morning, bringing out some of the main features of fluorescent lamps, and then invite you to ask questions. I say that for the reason that doubtlessly some of you have had some little experience with fluorescent lamps and probably have in the back of your mind some points on which you want to know more. As we become better acquainted with any product, we think of questions which we would like to ask, and I imagine that most of you have at least some fluorescent lamps in your factories.

One of the questions you might ask is: "Mr. Manufacturer, just what do you think of this thing yourself?" In answer to that I should like to read this statement by Mr. N. H. Boynton, general sales manager for the Lamp Department of the General Electric Company: "The chapter headings future historians will find most useful in telling about the main developments in lighting are, first, the carbon lamp, then the tungsten lamp, and now the fluorescent lamp." In view of his enthusiastic appraisal of this new light source, certainly we can believe that in a few years' time it is going to play a major portion in our daily lives both in our homes and in our offices and industrial plants. So it may be well to tell you the how and why of this lamp, and if I may take just a few minutes of your time I should like to relate to you what we are trying to do with it.

You are all familiar with the fact that ordinary light, or daylight, can be broken up, when passed over a prism, into its component colors—violet, indigo, blue, green, yellow, orange, and red. That much, known as the spectrum, we can class as visible light. We all know, too, that sunlight contains many other rays in addition to these visible rays. Any day now we may be going to the beach and coming back with a good coat of sunburn, produced by some of these other rays which we know sunlight contains—the ultraviolet light. We know also that ultraviolet light, in greater or lesser quantities, is contained in all of our artificial light sources. Our study of ultraviolet light has enabled us to break it down into several classifications that are interesting to us. Immediately below the shortest visible rays of light, the violet, are the health rays, which will cure rickets in children and roup in chickens and which are good for many things.

Just below the health rays we have the "sterilamp" rays. The sterilamp is something new, having just come on the market in the last year or two, and you may or may not be familiar with it. It kills the bacteria in the air and is used a great deal in hospitals. Recently one manufacturer has used his imagination and has used these rays to tenderize steak. We all know that steak from a freshly killed beef is not as good as steak which has been hung for some time, but in hanging it we run the risk of having it contaminated with harmful bacteria. These rays will kill out the harmful bacteria.

The next rays we have are the ozone rays, which are used in blood transfusions.

On the other hand, we know that there are rays which are longer than the visible rays and which are known as the infrared rays. We are all familiar with the lamps manufactured by a number of concerns which generate these rays. The infrared rays have the faculty of penetrating deep into the flesh and are used for relieving sore muscles and a variety of aches and pains.

Let us consider the conventional lamp, the regular "Mazda", for a moment and what we get out of it. Rating its output of energy at 100 per cent, only about 8 per cent of that is light and 92 per cent heat. In other words, the ordinary Mazda lamp is only 8 per cent efficient in creating visible light. Where does the other 92 per cent of the energy go? A good portion into heat; the lamp will get so hot that it will sear your fingers. Some of the energy goes into infrared and some into ultraviolet rays. Our problem, in order to get more efficient light from the lamp, is to shorten some of the infrared rays and bring them over into the visible spectrum or lengthen some of the ultraviolet and bring them over. Our laboratories have had very little success in shortening the infrared rays, but they have had great success in lengthening the ultraviolet. This has been done by permitting the rays to fall upon certain powders, called phosphors, which glow or fluoresce. The rays are lengthened and come over into the visible portion of the spectrum.

The mercury-arc lamp is the richest source of ultraviolet radiation and has therefore been chosen as the basis for our fluorescent lamp. I have here a group of these fluorescent lamps. First I show you a mercury-arc lamp which has been partially converted. You will note on the sight meter that we get a reading of 10 from the untreated portion and 40 from the treated portion.

As we change the chemical composition of the phosphor power we can convert these rays over into blue or green or any other color we wish, simply by changing the chemical composition of the powder. Here in this group of lamps you see we have warm white, pink, blue, daylight, gold, red, and green. Just as in mixing paints to paint a building, of course, the number of tints possible is unlimited, so by mixing these phosphors the number of tints or colors that we may obtain is unlimited. Instead of the seven that you see here we may well have seventy or seven hundred, or any number you may desire. We have chosen these only for the sake of standardization.

The efficiency of this lamp in generating colored light is amazing. We find that by using a low-pressure mercury-arc lamp, coating the inside of the tube with these phosphor powders, which convert the invisible light into visible, we have much more efficient lighting than ever before.

What takes place in this lamp? It consists of a glass tube, as you see, which has two small contacts, one at each end. Inside the tube is a small filament, we might call it. The current is passed through, and as the electrodes get heated they give off electrons. These electrons make it possible for the current to jump from one end to the other and set up an arc, this arc consisting of a small amount of visible light and a relatively large amount of ultraviolet light. The coating of phosphor powder on the inside of the tube converts the ultraviolet rays into visible light. Along with the mercury, to make the arc posible, a small amount of "Neon" gas is inserted into the tube.

You may be interested in knowing in what sizes we make these lamps. For your information, these lamps in this demonstration set are all 15 watts. The wattage runs 10 watts per linear foot, irrespective of diameter. A 10-watt lamp is a tube one foot long, a 20-watt lamp is two feet long, and so forth. A 40-watt lamp would be a tube four feet in length.

Since these are arc lamps there must be a means for starting them and a means for controlling them, so each one is equipped with an auxiliary. I use that term beause it is a transformer, it is a re-actor, it is a choke coil; it is all of those things combined together. This auxiliary furnishes not only the starting voltage that causes the arc to strike from one end to the other but operating voltage. The amount of voltage necessary for a lamp of one length is different from that necessary for another length, so every length or every size of fluorescent lamp requires an auxiliary designed for its particular length.

Someone might ask if the auxiliaries are interchangeable. They, unfortunately, are not. Experiments are now being made on operating two lamps from one auxiliary, and some progress has been made. It is still necessary, however, to operate each of these lamps with its own auxiliary.

If we are converting the energy that normally comes off as heat into light, as we increase our light component it is only natural that we would decrease our heat component. That is true, and we find these lamps much cooler than the conventional filament lamps. You all know how hot they get, and you would be surprised at the coolness of the fluorescent lamps.

One of the things that always interests people is the power factor of this lamp. It is well known that arcs have a low power factor. Initially the power factor of the lamp was 60 per cent. Arcs having a 60 per cent power factor, this at once fell into that classification. That simply meant that you had to provide one and two-thirds times the current-carrying copper that you would actually use because of the increased amount of current necessary to operate the lamps, due to the low power factor. We have been successful in experimenting with our auxiliaries, however, and today we are able to advise you that unity power factors are available. As a matter of fact, two or three lamps can be equipped with auxiliaries which give a power factor that is not only not behind unity, but actually ahead of unity.

In trying to determine whether it would be possible to operate more than one lamp with one auxiliary, we have found that we can operate two lamps with one if we have an alternating current, so that it feeds each of them with the alternation. That may be of interest to you, because it means less loss in your auxiliaries and cheaper equipment.

What are the advantages of the fluorescent lamp? One is that it produces light of a daylight-color quality. Another advantage is that it is distinctly cool. When used in low mounting the absence of heat, particularly in summer time, is especially advantageous. A third advantage, though perhaps not to you, is that it generates colored light at surprising efficiencies. Still another advantage is that where you have a long circuit, as in a cloth room, and need additional foot-candles, you can secure the additional light by the use of these lamps, without either overloading your copper or installing additional copper.

Architects tell us that the shape of this lamp is adapted to modern design much better than the conventional types, and designers tell us that this shape is much to be preferred. Doubtless in the near future we shall see lighting units of entirely different shape from those now in use.

Another distinct advantage of this lamp is that it may be used bare. I have left this one on for some time now, and although most of you have been looking at it I have yet to see any of you squint. Yet we are in a fairly dark room.

Those, briefly, are the six advantages of this lamp. At the present time it is somewhat high priced, naturally; and the equipment that must go with it makes it more expensive than the conventional type of lamp. We do not recommend that you take out your conventional lighting and install this, but wherever your lighting problems fall under any of these six heads we think this lamp will meet them.

If there are any questions you want to ask I shall be glad to answer them.

Discussion

Mr. A: Which color is most efficient?

Mr. Park: Green

Mr. A: That is in lumens per lamp?

Mr. Park: Yes. Green is more than twice as efficient as any other color. We do not know why.

Mr. A: One other question. I noticed you said those are 15-watt lamps. Is that one in the center 15 watts?

Mr. Park: Yes, sir.

Mr. A: But that is larger.

Mr. Park: The diameter is larger. The wattage depends not upon the diameter but upon the length. The reason that is larger is because with a smaller diameter it is so much brighter.

Mr. B: What is the loss in the auxiliary?

Park: Originally it was eight; now it is down to three watts. We make two types of auxiliary, the thermal and the magnetic. The thermal starts more slowly and has more loss, but is considerably cheaper. These are the thermal-type auxiliaries. In the magnetic type the loss is now possibly under two and in the thermal under five. We make both types, to meet different needs.

Are there any other questions?

Life of More Than 2,000 Hours

Mr. Iler: I have a list of questions here that was handed in. The first one is: "What is the average hour-life of the lamp in a stationary installation?".

Mr. Park: We started off by listing these lights at 1,000-hours life. We very quickly raised that to 1,500, and all our experience today indicates that these lamps may well be expected to average above 2,000 hours. Just how much more we are not prepared to say.

Mr. Iler: The next question is as to the average number of hours of life in an universal installation.

Mr. Park: I imagine that would mean in any position, or movable, if moved around. The life of this lamp depends somewhat upon the number of times it is started and stopped. When it is started the electrons are thrown off in greater quantity, and as the electrode here is eaten away or reduced in quantity the life of the lamp is shortened. The number of times you turn it on or off does affect its life somewhat. The position in which it is hung does not affect it, nor does vibration nor moving it around.

Color Matching

Mr. Iler: The next question: "In using this light to match colors in process work, like yarn on bobbins and spools in skeins, is it satisfactory?"

Mr. Park: Let me say "Yes" and then defer further answer until I show one slide which I think will answer that question fully.

Mr. Iler: Here is the next one: "In using it for inspecting plain goods, is it not better on the employees' eyes?"

Mr. Park: We have been trying for years to determine what effect color has on people's eyes. I do not believe there is actually very much difference at all, other than personal choice. I used to have the feeling that the Cooper-Hewitt lamp was hard on people's eyes, but I know now that it is not. I did this; I took some of these green lamps out and equipped a plant with them. It was the greenest place you ever saw, and the people did not like it at first. But I purposely did not show up there for two weeks, and after three or four days they were perfectly satisfied with it. It has twice the efficiency of daylight. I think daylight lights would please most people best.

Mr. Iler: "Can the lights be so arranged as not to make a shadow and still give the proper light?"

Mr. Park: I believe that can be answered yes. We have least shadow at noon, in daylight, on a clear day. This lamp in its greater lengths has the same effect as the longer Cooper-Hewitt lamp, in that, as you hold out your arm, the light will pass on either side and wash out shadows. It has been very successfully used in that manner.

Light in Manufacturing Department

Mr. Iler: The last question I have on this sheet is: "What is your opinion with regard to atrificial light in industry? Should the manufacturing department have as good lighting as the inspecting department?"

Mr. Park: That is a pretty big question.

Chairman Kay: In almost all mills I have visited there was not as good lighting in the manufacturing end as in the inspection department. I have always thought we should have just as good light to manufacture goods by as to inspect them.

Mr. Park: I might offer just a thought or two on that. Please do not take what I say as a recommendation. You may or may not agree with me. I suspect we have better lighting in the inspection department for two reasons. Rejected goods always gripe the very life out of the sales department. They hate to have goods thrown back on them, so they are more likely to spend money on lighting in the inspection department than in the manufacturing department. Then a second reason is that the inspection department is much smaller in area than the manufacturing department. It would take much more money to light up the manufacturing part of the plant than the inspection part. That may not be a reason, but don't you think it has its influence?

Chairman: As I see it, this lamp takes less power for its light than the old type of light?

Mr. Park: That is right.

Chairman: Is that one step toward getting better light in the manufacturing part of industry at less cost?

Mr. Park: Gentlemen, let me say this. This lamp is more efficient. It will not ever reduce your power bills or your lighting bills. The human eye, when permitted to choose, always choose intensities far greater than those we have today. I think you will find about the same total wattage used, with intensities three or four times what we have in our plants today, with the result that your manufacturing department will come up in the intensities used as compared to other departments like inspection.

Mr. Iler: Even though that is true, and you do not reduce your power bill, you would have much more light for the money expended, would you not?

Mr. Park: That is true. It is in our industrial plants as in our homes. Electric rates are reduced, but our bills do not go down in our homes. They may for a month or two, but we like the benefits we get and we use more electricity. That is also true in our industrial plants; we do not cut down our bills, but we get more benefits.

In the light of what we just discussed—that we would like to have more foot-candles if possible to get them, we have been publishing for a number of years a table showing the number of foot-candles recommended for different operations in textile mills. We have had of necessity to limit our recommendations, depending upon our ability to install light that would actually deliver what we recommended. Now that we have developed the ability to deliver more foot-candles we have raised our recommendations.

Somebody asked about the color-matching value of this light. We know that the finest natural light we have is daylight on a clear day in June. I have here a table showing the relative luminosity of the different colored light from these lamps, as compared to that, in angstrom units. Violet, you see, is the best light for matching colors. Yellow-green, yellow, orange, and light red are all very, very satisfactory; probably better than the average person's eyes. We can say that this light is extremely satisfactory; it has been used for color-matching in a number of industries and has proved all right. For a few dollars you can buy a piece of equipment with a reflector and auxiliary, whereas you have been accustomed to paying up to several hundred dollars for color-matching equipment. And you see how close it comes to the very finest natural light obtainable.

One of the operations you folks in textile mills run into more than any other, though of course the men present here this morning are not concerned with it, is inspection of silk cloth, when you have to look into it hung up in front of a window. You can inspect silk cloth at midnight just as well as in daylight with this equipment, at very little expense.

I thank you very much, gentlemen, for the opportunity of being here with you and presenting this subject and for your attention.

Chairman Kay: We thank you, Mr. Park, and we appreciate your coming this morning and giving us this very interesting talk and demonstration.

Gentlemen, at this time we are going to have a moving picture showing the process of pipe welding, which is furnished us through the courtesy of the Linde Air Products Company and will be presented by W. R. Lawhon, of their Columbia office. Mr. Lawhon.

Pipe Welding

W. R. Lawhon, the Linde Air Products Company, Columbia, S. C.: We are not going to make any speeches; we have brought some films on pipe welding and hard surfacing that I believe you will enjoy more than anything we could say. After the pictures have been shown, however, these men will be glad to answer any questions that you may want to bring up on pipe welding or hard surfacing. They are practical men and may be able to give you helpful information.

. . . Mr. Lawhon then ran several reels of moving pictures showing the process of pipe welding, multiflame welding, and hard surfacing with nonferrous hard-facing materials.

Chairman: Have you any questions, gentlemen?

Mr. Iler: I am very much interested in finding a machine to resurface rubber rolls without grinding them. We have never been able to find a way yet.

Mr. James: What happens there?

Mr. Iler: The tool loses its edge. Even the best tool steel will lose its edge.

Mr. Harwell: That is a very interesting problem. I have never looked into it, but I will investigate and let you know.

A Member: How hard is that rubber?

Mr. Iler: It varies in density from dead hard up to 100.

Welding vs. Threaded Pipe

Chairman: Here are some questions on welding that were handed in. The first is: "In pipe welding on a new installation, how will it compare in cost with threaded installation?"

Mr. Hawrell: Offhand, I can tell you it runs about fifty per cent cheaper. That is derived from the costs kept on something like six thousand miles of piping.

Chairman: In putting up an installation on the secon floor ceiling, will vibration have any tendency to cause the joint to crystallize?

Mr. Harwell: No, sir.

Chairman: Steam heat does not have any effect on it?

Mr. Harwell: No, sir.

Fred Tindall, Master Mechanic, Inman Mills, Inman, S. C.: What about the service? Does a welded joint give as long service as a threaded joint?

Mr. James: Much longer. You will notice that the first leaks always come around a threaded installation. It is the weakest point and corrodes first. In welded joints you do not have that condition.

Mr. Tindall: Will a welded-joint pipe installation meet with the approval of the underwriters?

Mr. James: Yes, sir, absolutely.

Welding Steam Boilers

Chairman Kay: Here is another question: "In making repairs on steam boilers, say with from 75 to 150 pounds of steam pressure, would a welded job, carried out properly, be safe and satisfactory to all concerned?"

Mr. James: I will say this; it is much better to consult with your boiler inspector about the standards in use today. The code has been changed. The old code was made up by the older members of the American Society of Mechanical Engineers. Today they have young members on the committee, and the code has been changed. It is always best to consult your boiler inspector.

Chairman: Are there any other questions?

I should like to ask one more about the pipe welding. Are these outfits very expensive? In other words, in an ordinary textile plant, would a portable outfit to carry around through the mill, wherever you want to do a job on pipe, be very expensive?

Mr. Lawhon: Most textile mills in this area are equipped with a standard portable blowpipe. The only extra expense you would have would be for the multiflame tip.

Question: Is that tip as suitable for welding flat surfaces as it is on the curve of a pipe?

Mr. James: Yes, sir.

Mr. C: After you put that hard facing on, any machining done would have to be done by grinding?

Mr. James: Grinding only. You can put it on smoothly enough so that you do not have to do much grinding.

Mr. C: What I had in mind was hard-facing rolls of small diameter—case-hardened.

Mr. James: Well, it is best to grind them anyway.

Chairman Kay: Are there any more questions?

Our time is just about up, but before we adjourn we have to elect a new chairman. Nominations are now in order.

. . . Mr. Iler nominated Fred Tindall, of Inman Mills, Inman, who was unanimously elected. It was agreed that the selection of the executive committee for this division would be deferred for the present, for the chairman to make recommendations.

. . . B. Ellis Royal, secretary of the Southern Textile Association, asked for suggestions for future meetings, and a brief discussion followed. Several members expressed themselves as being of the opinion that meetings held about the middle of the week would be better attended. About half of those present voted in favor of having such demonstrations as given at this meeting and about half in favor of having general discussion. A suggestion of devoting one meeting to an inspection of a steam plant, a rayon mill, etc., was also favorably received.

Chairman Kay: I will turn the meeting over now to the new chairman.

Mr. Tindall: I have nothing to say, gentlemen, except that I thank you. If there is nothing else to come up, the meeting is now adjourned.

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U. S. Purchases Of Japanese Cottons in 1938 Dip Heavily

Washington, D. C.—American purchases of Japanese cotton piece goods in 1938 amounted to only a small fraction of the preceding year's trade, according to a report from Consul W. P. McConaughy, Osaka, made public by the Department of Commerce.

Official statistics just issued in Japan show that shipments of such items to the United States in 1938 totaled only 16,115,407 square yards, valued at 2,406,587 yen ($685,900) compared with 123,776,273 square yards, valued at 22,137,980 yen ($4,870,000) in 1937.

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Manufacturers of Leather Belting
Mill Strapping and Loop Pickers

How To Prevent Uneven Yarn

(*Continued from Page 17*)

We should put down as many bales at a time as the room we have will permit. If we have plenty of space enough should be opened at a time and allowed to remain in an opened condition until the next day before it is run.

Opening

The opening room should consist of six feeders at least, five of them used to run the cotton through and one used as a waste feeder. As near as possible the waste hopper should be set so that the waste wll run continuously with the other hoppers. The cotton should then be deposited on a long apron and carried to the openers and cleaners. These machines should not be operated at too high a speed for the amount of cotton that is passing through. The object being to open the cotton thoroughly and remove as much of the objectionable matter without injury to the staple.

Pickers

As three-process pickers are fast going out of use what I say here will be with the one-process pickers in mind.

They should be taken apart, cleaned up and overhauled every two or three months. All beaters put n first-class condition, screens checked and repaired, all leathers that are worn or torn replaced. Ball bearings taken out, cleaned and lubricated with the proper lubricant. Mote bars reset, evener examined and properly adjusted for accuracy. Calender rolls taken out, cleaned and polished, bearings removed and the worn ones replaced.

Cards

All clothing should be kept tight, flats, licker-in and screens in good condition. If it is discovered that the screens have become rough at any place they should be removed and polished. I will not discuss settings here as there are different ideas about card settings and the cotton beng put through should be considered. However, the settings should all be as near the same on every card in a room as the condition of the card will permit. The operator in putting on laps should piece each lap carefully end to end, or a thick or thin place will be the result. When stripping cards they should be allowed to run after it has been stripped with the feed connected before the sliver is placed in the can long enough to allow the sliver to get just about back to its proper weight. If this is not done a large per cent of the weak places in yarn can be traced back to this evil, namely, putting the end up too soon after stripping. A good draft on a card is 95 to 100.

Drawing

Drawing should be kept so that they will stop as soon as the end has passed over the spoon. All rolls kept clean, clearer boards picked and calender roll covers cleaned off after each doff. All rolls taken out and the rolls and stands cleaned at least every four weeks. All gears examined and those that are worn taken off before they break. This will not only save other gears, but will prevent cut sliver. The calender rolls should be adjusted in speed so that the sliver will come through the trumpet without sagging or lapping in between the front roll and trumpet. Can tables should be set so that the sliver will be placed in the can in a coil that does not fall over and stretch the sliver at the next process. The draft making a good sliver is 5.80 to 6.00.

Fly Frames

The fly frames should be lined and levelled once a year, bottom and top carriages cleaned and the bearings lubricated with the proper grease. Steel rolls should be taken out and cleaned twice a year, all worn or loose necks repaired and straightened. Stands lined and levelled. If ball bearing top rolls are used they should be taken off the mandles, the mandles washed in gasoline,

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Cotton Goods Markets

New York.—Generally speaking, the situation in the cotton goods markets appears to be somewhat improved over a few weeks ago. Mills continue to be bothered with the necessity of curtailment in some cases, largely depending on the class of goods manufactured, but the sentiment seems to be more cheerful in the majority of the industry.

Close observers attributed the better feeling largely to outside developments, particularly the stronger trend of securities and commodities. Although securities underwent a spell of profit-taking, commentators found encouragement in a continued easing of European tension, expectations for tax revisions and so-called "inflationary" aspects of the new spending program now being considered by the administration.

There were no new developments pertaining to the trend of print cloth production, but commission merchants again presented the opinion that the high cost of cotton, if nothing else, would have the effect of forcing mills to curtail operation with or without benefit of a program of collective action.

Certain observers were of the further opinion that forced curtailment of this kind would have a stronger influence upon prices than the 25 per cent reduction of schedules contemplated in the proposed Print Cloth Control Plan, which still seems to lack the necessary 95 per cent of the print cloth looms necessary to be effective.

Specialties have recently been found to be in more active demand by some sellers than most of the staples, though the staples and industrial fabrics have largely led in the recent buying movement. Industrial users, particularly the pyroxylin fabrics trade, called for forward deliveries of wide goods in somewhat better quantities.

As old-crop cotton steadily mounts in price and no sign comes from Washington to indicate that the Government is preparing to release loan holdings, the basic cheapness of cloth prices, especially of print cloths, has quickened the interest of buyers.

But some observers contended that the cotton influence could only be temporarily stimulating unless either one of two things happened: If users were to absorb really heavy quantities of goods, or if mills decided drastically to reduce the available supply of print cloths. The same observers failed to see how the one development could occur without the other.

J. P. STEVENS & CO., Inc.

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Cotton Yarn Markets

Philadelphia.—With raw cotton continuing to move up, spinners have begun the first general increase in prices for several months, but increases noted are not enough to cover the rise in cotton prices as yet. Whether or not the market will continue to maintain its lively pace of the past several weeks in the face of the increased prices remains to be seen, but competent observers are of the opinion that there will be little slackening of buying for several weeks to come.

Apparently, cotton yarn sales for May will run about 50 to 60 per cent higher than for the same month last year, and will show a substantial increase over April of this year. However, even though prices are improved this year, there is little indication that more than a few spinners are making better than expenses with prices at their present level.

Just what the government is going to do about the present heavy supply of cotton held in warehouses continues to confuse the entire market, and there are no indications that a solution to the problem is at hand or will be in the near future. Spinnable cotton continues to be scarce and the better grades command a price that is out of line with the published prices for raw cotton, which makes the problem of the mills attempting to get a fair price for their yarns more complicated. Buyers are hard to convince that cotton delivered at the mills is quite a bit more expensive than the published prices.

Deliveries have been holding up sufficiently so that the distress yarns that were available several weeks ago have almost disappeared from the market, and the volume of such yarns is so little that it can no longer be considered a factor in the market. Also, should the present rate of sales and deliveries continue for a few more weeks it is possible that buyers may find it difficult to obtain good yarns for early delivery. Stocks at the mills have been reduced to the point where an active market, or a sudden spurt, might result in an actual shortage of better grades of yarns.

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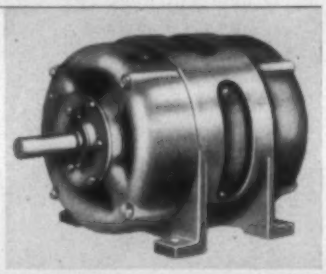

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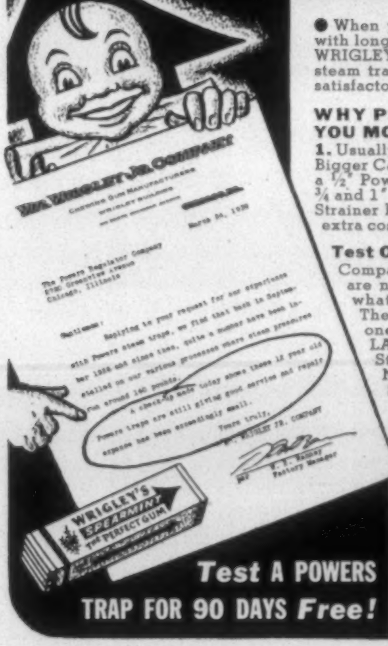
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Textile Mill Lubrication Discussed At Raleigh Meeting

(*Continued from Page 8*)

course. What is the difference in temperature between summer and winter in our bolsters? What is the average spinning room temperature in this area in the summer time?

A Member: I think it reaches 90 degrees.

Chariman James: From 90 to 100.

Mr. Trewin: All right; from 90 to 100, and the bolster temperature will be 10 degrees higher, say. Now what is it in the winter time? What is it when we get down to winter operation?

A Member: About 55 that near the floor.

Mr. Trewin: About 55, because you get a cold air settling down there. But of course you get a little heat from the bolster.

Question: How do you measure it when you go into a mill to find out?

Mr. Trewin: You can take a thermometer, but the pyrometer is one of the best means for getting base temperatures. We take it and estimate it, and then try to estimate how much over the temperature of the room it is. It is my idea that we can save power by changing the viscosity of the oil for seasonal operation. The manufacturer, of course, gives a recommendation for the highest temperature you will run. In the winter that oil will have an increase of from 50 to 100 per cent in body. So let's try to maintain that viscosity at the lower temperatures by using a lighter oil.

Cleaning of Bolsters

P. B. Parks, Jr., Supt., the Erwin Cotton Mills Co., No. 5, Erwin, N. C.: It is a difficult proposition to clean out the bolster on a spinning frame, because you can not turn it upside down. There may be a deposit of sludge in there. What is the best way to clean out that sludge?

Mr. Trewin: The best thing in cleaning bases is to take a suction syringe and suck that oil out. Only in very extreme cases do you find that inside that base you have such a heavy deposit that it can not be loosened up by using a light oil with a brush. In other words, flush and pump your spindle bases. Take out the bolsters. Wash the bolsters in light oil, unless you have a very heavy, gummy deposit, in which case you may have to use a solvent. Take out the spindle and wipe it off; take out the blade, examine it, and wipe it off. Then be sure you get the same assembly of blade in spindle and spindle in bolster. Very rarely the necessity arises, from having a very heavy deposit, that you have to use a solvent. Kerosene is a poor type of solvent. It helps some, but if you use it be sure the parts are well coated with pure spindle oil before they are put back in there, because kerosene cuts down to the surface of the metal and cuts out this film of spindle oil that is in the pores of the metal.

Sometimes in putting in new frames you get black, dirty oil in a short time. That black oil that comes originally is from the running in of the bolster. The metal of the bolster is such that in running in it develops a high polish. It is an iron material and in some instances has graphite added to it, or graphite in the iron. Cast iron, we know, will take a high polish. If you put in new frames and find you are getting black oil in a relatively short time, don't condemn the oil. That is what it is supposed to do. But take out that black oil, because if you don't it will clog up and you will not get proper lubrication. Remember that you have a floating bearing in there which is actually designed to be dampened by oil films. That is what the bolster is.

C. S. Tatum, Secretary-Manager, Pilot Mills Co., Raleigh: How can a mill man determine what is the best spindle oil for him to use?

Mr. Trewin: I would start by following the recommendations of the builder of the frame which you are using. Then use a high stability spindle oil, from a good oil company; one which has the maximum resistance to oxidation and which has high stability, so that it will not develop gum or sludge or these deposits on the bolsters. To arrive at the correct viscosity, start out primarily with the recommendation given by the builder fo the machine. Generally speaking, for the light gravity spindle —the old type of spindle—that is a viscosity of 60 seconds at 100 degrees. For your heavier duty, long draft, we come up to 80 seconds, and for a little heavier to 100 seconds. For the average you want an oil which will give you a viscosity of 80 seconds at the operating temperature.

Mr. Tatum: Is a power-consumption test on a spinning frame conclusive?

Mr. Trewin: It is very difficult to run a power test on any spinning frame, because we have so many variables and we are dealing in differences of only a fraction of one per cent. Just remember that the difference in temperature has a bearing, as well as the difference in speed and all of that. When we are trying to find a difference of only two or three per cent it is a very difficult job. The engineers in the mills can perform this work and do it very satisfactorily, but there are so many variables coming into the problem that it is difficult to average them out.

Mr. Tatum: What I had in mind to bring out was this. You might get an oil that would give you a low power consumption and yet that might not be the best oil to use.

Mr. Trewin: That is true. You can not tell by running a short power test; you have to run it over a period of time—over an average year's conditions, you might say. If your spindle and bolster are completely separated by oil and you have what we are attempting to show here—complete separation of surfaces, the only friction resistance being the shearing of the oil in the film, then that oil would give you the lowest power consumption. But that might not be the condition which would give you the margin of protection necessary to protect those frames throughout your running conditions.

Use of Kerosene As Solvent

Mr. A: Do you see any objection to using kerosene to cut out these deposits you spoke of?

Mr. Trewin: Kerosene is not a good solvent. It makes no difference what I say about it, though, you are

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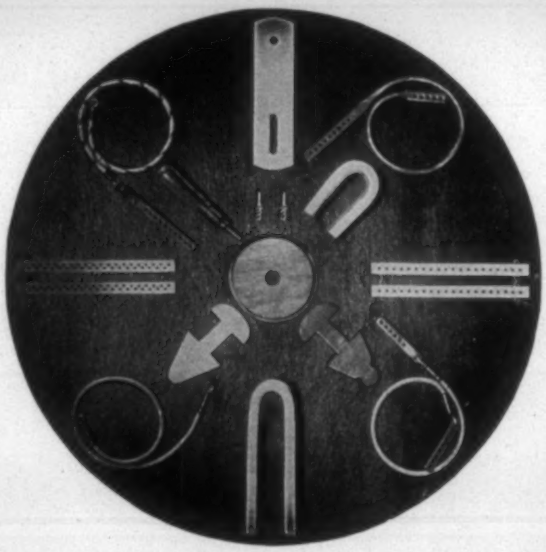

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going to use it. (Laughter.) But you are doing some harm, and in ninety-nine cases out of a hundred you are not doing enough good to justify the kerosene. You can not dissolve these films with kerosene; you know that.

Mr. A: Let me ask you a question, then. What do you recommend for that? In other words, we are trying to arrive at some method of getting that out of there without having to do so much work.

Mr. Trewin: The best method is to wipe them and scour them with light oil.

Mr. A: I grant you that.

Mr. Trewin: Petroleum ether is a better solvent than kerosene. Chloroform is still better. In other words, to divert from textiles entirely, say you get a sample of oil from your crankcase and run that for analysis. Suppose you want to know what is in it and why. You take a sample and get the deposit out, using a centrifuge to drive out the deposit or maybe filtering it out. Then you wash that deposit with petroleum ether, which is a good solvent. That washes out all the oil, and then you have to use something else to wash out the gums. We dissolve those with chloroform. I do not think you can use chloroform in your mill very well, but that is the only thing we know that will dissolve that deposit. These products are not soluble in kerosene to any extent.

A Member: What about gasoline? What objection have you to gasoline?

Mr. Trewin: It is practically the same thing. What it does do in some instances is to take out those very delicate materials which we have been building up in the skin of the metal. It does not take out any of these gums we have been talking about. It takes out what you have been building up in the bearings of your machinery. When you remove that you get bright, raw metal. It is those films which are so important to us.

Variation of Temperature of Greases

Mr. C: Is there a relationship between the variation in oil viscosity in winter and summer and the variation in grease in ball bearings? Is the variation in the viscosity of the oil about the same as it is in the grease in ball bearings, or is the variation less? I am thinking about a certain ball bearing grease we use for winders, etc.

Mr. Trewin: We are talking about two distinct problems. One is fluid film lubrication, and the other is plastic film lubrication, which is an entirely different problem and into which viscosity does not enter. It is true you get a hardening or a stiffening of greases, but with the average drop in room temperature the saving you can effect by changing greases is not worth while. It is not worth while unless you have extreme change in temperature.

Mr. C: I notice the winders are hard to start up in the morning in the winter time; they are stiffer.

Mr. Trewin: It is true there is a little hardening or stiffening in the grease in cold weather. For instance, in the tipples of coal mines we put in a cup grease for temperatures of from 32 degrees down to zero. They have to stand on the belts to start the tipple machinery. There we have to put in a special grease. We also do that in pumps and other machinery in cold-storage plants and in quick freezing plants. There are greases designed especially for those low temperatures. But we do not get that much variation in a textile plant, as I see it.

Use Less Grease in Ball Bearings

Ball bearing lubrication is a long subject. Normally speaking, gentlemen, don't use too much grease in ball bearings for the average type of grease used. Don't pack it with a gun and jam it in so that it comes out at the seals. That is the worst thing you can do, because it causes heat. For the few ball bearings, relatively, that you have, buy a ball bearing grease, because the average cup grease, which has a lime-soap base, is not suited for ball bearing lubrication. It will pay you to buy a ball bearing grease. In the average mill you may use from 5 to 25 pounds of it in a year, so don't be penny wise and pound foolish.

Question: What is the best way to put it in?

Mr. Trewin: If you have a drain plug on your ball bearing it pays to open that bottom plug when you are applying grease, so that some of the old grease extrudes out through that opening and so that you do not get too much. Generally speaking, lubricating ball bearings once in three months or once in six months will do, but you have to watch your individual case. Certain ball bearings, such as those in pickers, may require the application of grease once a month or maybe in some instances once a week. But don't give them too much. Watch your bearings and watch your temperatures. There is no reason for any bearing in a textile to run any appreciably increased temperature. It should be just nice and warm to the hand.

Cleaning Ball Bearings

Question: What about cleaning ball bearings?

Mr. Trewin: If you have to clean them out you have the wrong grease in there. After you have gotten it all out—and you will use kerosene no matter what I tell you, as I said (laughter); get all that old grease out and then take a light oil and get the bearing well immersed in that. Then put in your proper grease, but don't crowd it on the shaft. A ball bearing is a precision piece of machinery, and you don't want to crowd it. Be sure, if you clean them with kerosene, that they are properly immersed, properly cleaned, properly greased, and the grease worked in between the balls before you put it back on the shaft, and don't force it on the shaft. You are dealing with a precision piece of machinery, and if you force it you will distort it. The proper mounting of the ball bearing is just as important as having the proper type of bearing.

A Member: I want to ask this question in regard to gears. For instance, I have a motor making 750 r. p. m. and I have a 17-tooth gear on it, and I should like to know how to lubricate it effectively and so that the grease does not get out on the end of the teeth.

Mr. Trewin: That is a very hard thing to do. It can be done, but I don't want to get into a discussion of a particular type of product. Generally speaking, the practice has been to use a cup grease or a lime-soap base grease. If you put that on, after two or three revolutions it is all out on the ends of the teeth. It is better to use oil than to use a cup grease. There are types of products that can be used; for instance, an aluminum-soap base grease. If you use a product of that type it will give you ten days' lubrication and run just as pretty as you please.

Chairman James: Are there any more questions you want to ask Mr. Trewin?

I want to thank you, Mr. Trewin, in behalf of the members of this division of the Southern Textile Association, for your contribution to this meeting. I am sure we all appreciate your coming and giving us the benefit of this information.

I now call for the report of the Chairman of the Nominating Committee.

Report of Nominating Committee

P. B. Parks, Chairman Nominating Committee: Gentlemen, we, as your Nominating Committee, have duly deliberated, and we feel that before presenting to you nominations for the new year we are justified in commending the officers who have just completed this year's work. We could not have had a meeting like this today if they had not done a good job, and we want to thank them.

The slate we are recommending is largely a matter of promotion. We are recommending that J. B. Batten, of the Rosemary Manufacturing Company, Roanoke Rapids, our present vice-chairman, be elected as chairman for the coming year. For another reason we felt that it is best to go back and pick up an officer who was never passed all the way through, and we recommend W. H. Miley, Jr., of the Erwin Cotton Mills Company, Erwin, as vice-chairman. In order to keep the services of our efficient secretary and retain him for more important service we recommend the re-election of George Gilliam, of the Sterling Cotton Mills, Franklinton, as secretary. To serve on the Executive Committee, for a four-year period, we submit the name of H. Grady Lyon, of the Erwin Cotton Mills Company, West Durham. Due to the fact that Mr. Miley is the youngest member of the Executive Committee and if our suggestion is followed and he is elected as vice-chairman there will be a vacancy on the committee, we recommend for that place Sidney Green of the Eno Cotton Mills, Hillsboro, to serve three years.

Chairman: Are there any nominations from the floor?

. . . No nominations were offered from the floor, and the above-named officers and members of the Executive Committee were elected.

Chairman James: Mr. Batton, I hope you will have a very successful year as chairman. If there is anything I can do to assist you I shall be glad to be of service.

Mr. Royal, have you any announcements to make?

. . . B. Ellis Royal, Secretary of the Southern Textile Association, announced that the annual meeting of the Association will be held at Myrtle Beach, S. C., on June 16th and 17th.

Chairman James: Are there any other announcements?

I might say that the other members of the Executive Committee are D. E. Long, of the Oxford Cotton Mills, Oxford; Virgil E. McDowell, Rosemary Manufacturing Company, Roanoke Rapids; and George E. Moore, J. M. Odell Manufacturing Company, Bynum.

If there are questions on any textile problems we might take two or three minutes to discuss them.

Since no one wants to bring up anything, the meeting will adjourn.

(Whereupon the meeting adpourned, at 12:10 o'clock p. m.)

Thornton To Head Atlantic Cotton Association

Greenville, S. C.—The Atlantic Cotton Association concluded its annual convention here with election of officers.

Thornton Clark, of Montgomery, Ala., was named president of the Association to succeed A. H. Pell, of Charlotte, N. C.

Other new officers are: T. W. Crews, of Spartanburg, first vice-president; and Fred Cockrell, of Atlanta, second vice-president; F. G. Hill, of Atlanta, treasurer; J. M. Gloor, Jr., of Atlanta, secretary; and W. N. Pendleton, of Atlanta, traffic manager, were all re-elected.

New members of the board of directors are: Mr. Clark, Martin Health, of Atlanta; J. M. Reynolds, of Atlanta; C. M. Hohenberg, of Selma, Ala.; W. B. Davis, of Newnan, Ga., and R. B. Walker, of Columbia.

Hold over directors are: L. E. Bashinsky, of Birmingham, Ala.; Mr. Pell, and J. A. Baker, of Charlotte, and F. B. Montgomery, of Greenville.

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How to Prevent Uneven Yarn

(*Continued from Page 35*)

lubricated with a good grade of vaseline before putting them back. All gears should be gone over and set so that the rolls will not vibrate. The bearings in the back of the frames should be kept well oiled and working freely in order to produce a good bobbin from the frame. Steps should be kept well oiled, flyers kept well balanced, flyer heads should be kept cleaned out around the slot pin so that the flyer will fit properly on the spindle. All skewers should be kept in good condition to prevent stretching of the roving in the creel. Only enough twist should be inserted to prevent the roving from stretching at the next process. The tension should be watched carefully, the proper rack and cone gear used to insure an even running strand of roving from the beginning of the set until the frame is filled. A slight shake of the strand of roving while the frame is running is desirable. The roving guide should be set so that it will travel as near across the boss of the top roll as possible without passing out from under the roll. This not only makes a better roving, but reduces roller cost. When creeling the roving ends should be pieced end to end and not allowed to run three together for a few inches and make heavy roving. If it is done for two inches perhaps we will have 5 to 7 yards of heavy yarn when spun on a long draft spinning frame. All roving trumpets in the guide should be kept free from anything that obstruct the passage of the roving, or an uneven roving will be produced and the result uneven yarn. Too much cleaning should not be done while the frame is running, but should be done at the doff after the roving has been taken from the spindles and stacked in rows in a clean box.

Spinning

When the roving is received in the spinning room it should be taken from the roving boxes as soon as possible. It is best not to lay too much on the frames at any one time. The idea is that if there is not too much roving on the tops at any one time no old roving will be left to dry out, causing light yarn to be made. And surplus roving should be stacked nicely in bins which are separated from the room. The roving will be kept nice and clean, free from lint and dust. Creeling should be done carefully, no extra end of roving should be allowed to go through the trumpet, causing heavy places in the yarn. On single roving the best way is to let the roving run through and put the end up after the new bobbin is set in. This method of creeling is not practiced very much but could be done with excellent results. All frames should be lined and levelled once a year, spindles plumbed, guides set, all gears examined and those that are found worn very much or broken replaced. Steel rolls should be taken out twice a year, the necks tightened and straightened, all flutes cleaned good, all stands cleaned, lined and levelled, all top rolls examined, those that have become worn taken out.

I would like to have discussed settings on different machines through the carding and spinning, but find the space is about taken up. Perhaps at some other time I can add them in.

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Industrial Relations—The Reflection Of Management Attitudes

(*Continued from Page 6*)

relations men, and research groups all over the United States are giving intensive study to this problem. Any executive who really would like to know, and who cares to take time to find out, can, at the writing of twenty letters or the giving of a month's time, become familiar with the best contemporary standards practiced in private enterprise. It is possible to be sure; that is, as sure as anything can be in this fast-moving era, that our policies are in alignment. We *can* definitely get ourselves to the point where our position is sound and defensible in terms of contemporary standards. Needless to say, unless our policies are right, and our position entirely defensible, there is not much we can do to achieve good industrial relations.

Inside Leadership Must Be More Effective Than Outside Leadership

Once we have our policies right, we turn to the one other condition under which employee unrest can occur; that is, when the leadership inside the company is less effective in administering these policies to the employees than leadership outside the company is in selling them contrary points of view.

This leadership inside the company is expressed in the way we live our day-to-day operations and not in the doing of superficial things like the distribution of pamphlets, use of pay roll enclosures, and the organization of a baseball league. It is, basically, again, the *way* we carry on.

Let us turn to one or two common problems and examine the *way* they are treated. They will, perhaps, serve to illustrate our point as it should be applied to *all* operations.

Employees Should Understand Their Bases of Pay

Let us take one of the toughest ones first—the matter of wages. We will assume that we have met the first requisite—our policy is right. We have made certain that our wage levels and wage system are right in terms of good contemporary standards; but how is the wage system to be installed? When the jobs are being evaluated, do the workers know the reasons for the evaluation, and by "reason" I mean something broader and more fundamental than the erroneous belief that the company wants to step up production and cut rates. After each worker's base rate is set in relation to fellow workers', is the worker concerned allowed to see the job study sheets and become convinced that his job has been fairly evaluated? Will the job be restudied if the worker feels strongly that all the facts have not been considered? Does he know that his rate is in line with the rates paid for similar work in the community and with those in competitive industries? These points are raised because we have the choice of getting acceptance of wage rates at their inception, or of going through long and costly procedure to get acceptance of them after trouble arises. We might call this management by consultation and not by dictation. It is simply the common sense procedure of "talking out" a problem together rather than "shoving it down employees' throats"; and it is not a new procedure at all. Farsighted leaders have used this consultative procedure ever since history began. The unfortunate part of it all is that this method has been used only in "spots", according to the temperament of the particular executive or supervisor. Our need, now, is to recognize it officially and make it universally applicable. For year many managements have consulted with representatives of employees on matters of mutual interest through formal plans for such consultation. Today, this procedure, in an organized form, is the law of the land. If this is the accepted procedure on a formally organized basis, where intimate understanding of individual problems is difficult to achieve, isn't it common sense to make this consultation effective between a foreman and his men where a completely intimate understanding of the problem may be had?

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Changes in the Work Force Must Be Made On Basis Of Fact and Not Opinion

Now, let us examine, briefly, the next common occurrence in normal business life—the matter of raises and promotions—and, on the other hand, lay-offs and demotions. Again, there is nothing now in these everyday occurrences, but the *way* in which they are done may mean the difference between loyalty and disloyalty; between peace and strife. Now, I do not propose to indulge in the usual exhortation about the evils of favoritism, discrimination and internal politics. These are matters so deeply a part of the frailty of human nature that any attempt to overcome them by talk is a sheer waste of time. A definite plan by which success or failure is determined on the job seems the only sensible answer. This means a comprehensive plan of merit rating where employees are evaluated, insofar as is humanly possible, on a basis of fact and not according to a supervisor's opinion or possible prejudice, and even this of itself, is not enough. The *way* the rating plan it introduced and the *way* it is used are equally important. Obviously, workers should understand the several factors on the scale. They might even have some valuable suggestions to make. Are we so proud or so certain of our superior judgment that we would not accept a worthy suggestion from a worker as to the rating scale? These points are so simple and commonplace that it seems virtually a reflection on the intelligence of any group to mention them; but, in actual fact, how many foremen do take the trouble to explain patiently to their workers the bases upon which their success or failure is being judged? Perhaps the best answer as to whether the foreman do this job well may be derived from how well you and I do it. How many of us have sat down with our immediate subordinates, singly or in groups, and discussed (not to mention worked out together) the factors on which they were being judged, along with the relative importance attached to each factor? Thus, while it is a simple, common sense procedure, it does represent an accomplishment of the first magnitude to get it operating with all our supervisory forces.

Determining Success or Failure Should Be a Joint Effort Between Supervisor and Employee

The trouble with most rating plans, and I speak from experience, is that they are largely theoretical. The factors on the scale are often those developed by persons other than those actually on the job, and the ratings are all too often made and filed away for safekeeping; but, after the ratings are made, then what? Here is where the most important consultations of all should be made. What could be more constructive than a frank, friendly, private discussion between a man and his boss as to the ratings made? In fact, in the salary group, or any group where the number of employees does not make it impractical, the ratings themselves should be a joint effort between man and boss. Again, how would you and I react? Would we rather be called in and told how we stand; or sit down with the boss and work it out with him? There is no mystery to this. If we will but apply the procedure to ourselves, we will know at once how the employees will feel about it. Unless our rating plan plays a basic part in raises, promotions, lay-offs, and demotions, why have it? The advantages of making promotions, lay-offs, etc. in this way are many. What executive or supervisor has not faced the typically difficult situations?

1. An employee is given a raise. Another employee comes in afterward and claims to be as good, or better, than the one who got the raise. His story is so convincing that we find it next to impossible to give him any real factual comparison between himself and the other man. Of course, we send him out with "no" for an answer, but the chances are, with a feeling of discrimination deeply imbedded in his mind.

2. An employee with several years' service is picked for lay-off. When he is notified, he asks why it took us five years to find out he was incompetent, and why we did not tell him three or four years before that he was slipping so he could have improved his performance. What answer do we give that is sound, legitimate, and fair?

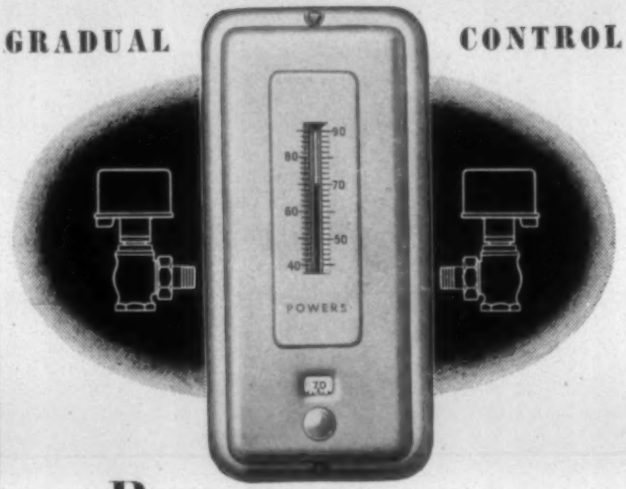
3. After lay-offs have progressed to the point where most of the employees left are perfectly satisfactory, we face the necessity of making still further lay-offs. How many of us have not been "stumped" to know how to pick the next group?

With a well-ordered plan of merit rating, lay-offs are made under a plan that everyone understands, and are not the real or alleged causes of discrimination growing out of what the workers believe to be personal feelings of the foremen.

Consulting With Employees Is Good Business

The determination of raises, promotions, lay-offs and demotions on the basis of mutually agreed fact, instead of vaguely conceived opinion, has another far-reaching aspect. Thus far, we have discussed the procedure as good "life insurance," as it were, against charges of discrimination. Further, it is good business and is even more effective as an active money maker. Bear in mind that the success of each business is nothing more or less than the composite success of each employee in it. As each employee knows more specifically where to direct his efforts, the whole business takes a step forward. In addition, creative genius is encouraged, initiative is developed, and hitherto untapped energies are released when employees share in and contribute to these basic determinations. Therefore, consulting with employees on basic problems of the job and of the business is not something we should "allow" or "stoop to do" or "do reluctantly for expediency's sake." It is the one sure way to success. We miss our greatest opportunity for progress and new ideas if we do not use it. If we find our businesses are not making progress, that there is a dearth of new ideas, that there seems to be no forward-looking enthusiasm for the future, the answer does not lie in formal suggestion systems, pep talks, or in any fancy, artificial stimulators. Instead, try talking over those problems with employees; give them a chance to think; don't crack down the first fellow who does not think just as you do; and see what happens.

As has already been indicated, the consultative method of management has its place in all aspects of the business and not solely as applied to matters of wages, promotions and lay-offs. These problems were cited because they are typical and common; not to imply that these are the



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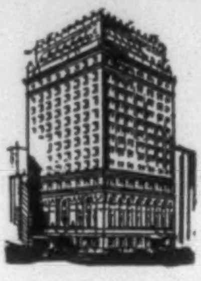

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The Foreman Is the Only Permanently Constructive Influence in a Worker's Job Lift

Throughout this discussion, we have emphasized the responsibility of the foreman in administering our "right" policies in that "way" which builds understanding and promotes effectiveness. Who else is there is our companies who can permanently command workers' confidence and respect, so that they may know what the companies' policies are right and that they are receiving a square deal ? Who else can help an employee make up his mind about the rightness of his wage rate, the necessity for an incentive system, the value of intelligent and properly paid executives, the importance of the customer, the necessity for discipline and the necessity for profit?

It requires no imagination whatsoever to examine, one by one, the several areas of influence in the average worker's life and to see at which of these points he might receive sound, impartial counsel on the problems of his job. The closest and first influence in his life, of course, is his wife. Obviously, she knows less about these problems than he. While she, doubtless, can aid him in judgment concerning the facts which he possesses, she can very seldom add any facts to the picture. Next, there are his fellow workers. Naturally, they are in the same boat. There are, then, his lodge, church, and fraternal contacts. These are largely composed of men of his own station in life and, as a rule, he can receive little help in job problems from them. Then, there are the newspapers and the radio. In the first place, the average American tends toward the tabloids. As to the radio, how many of us, not to mention the workers, listen to discussions of economics on the radio? Therefore, it becomes clear that the worker's foreman may be a continuously constructive influence in his life as concerns problems of the job. Is there any other? This being the case, therefore, we can not logically indict any worker for showing disloyalty to the company or for going astray in his thinking. The simple facts are that he has had no other basic for judgment and if any indictment is available to give the worker sound counsel; that is, the employer's delegated leadership; namely, the foreman.

Foremen Will Influence Workers As Top Executives Influence Foremen

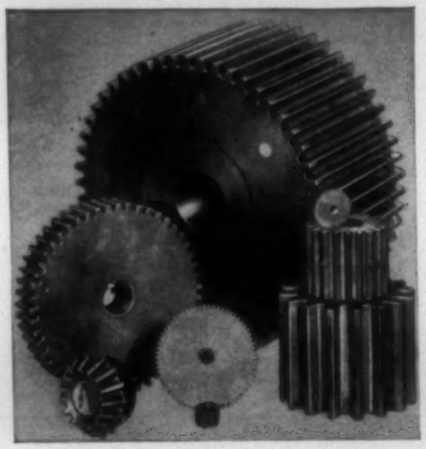
This brings us to our final point which is the key to the whole situation. As we consider the foreman and their capacity to do this job properly, we recognize immediately that many of them are incapable of explaining and administering the policies of the company because, except for the details of their own limited operations, they know very little about the company. Therefore, the crux of our problem lies in training the foremen. Many devices have been developed in the last several years to accomplish this objective. The most common method, if it can be called a method, of developing foremen has been to let them flounder around as best they might. The second way was to put them in classes and have them study matters of general information. The next refinement was through the medium of getting them together in conferences to think out together some of their problems. While these devices have all been of some benefit, they have been but a step along the way and are totally inadequate to accomplish the real objective desired. The one major weakness of all these training devices was the fact that the general foremen and superintendents were left out of the picture or were unsympathetic, or uninformed as to what the foremen were trying to do. Therefore, it has become obvious that the foremen must receive their conception of management and their understanding of company policies from the general foremen. These men, in turn, must receive their directions from the superintendent. The superintendents, in turn, are out of step unless they receive their instructions from the works manager. The same thing is true as we go on up the scale. The whole spirit and method of management to be practiced by foremen must start with the president.

Right Executive Leadership Is the Key To the Situation

This brings us back, therefore, to the realization that interpretation and administration of company policies, as respects industrial relations, is no different from the way policies as respects other phases of the business are made effective. The problem is not one of working with the foremen, but of finding some method by which unity of understanding up and down through all levels of supervision, from president to gang boss, may be achieved. This is the problem of management, not only in matters of employer-employee relations, but in matters of cost, quality and customer service. It is the problem of leadership. Just as we decided we could not indict a worker, but must indict his leadership, we can not indict the foreman, but must indict the general foreman, and so on up the line. Therefore, if we get our thinking straight up to the point where we actually want to do something about this matter of good management, and not merely talk about it, those of us in executive and leadership positions must accept the stern obligations which are inherent in these positions. This means we are obligated to take the initiative and to start "practicing what we preach" on our own jobs. This is the most far-reachng training job we can ever perform. Everyone looks to his boss for guidance. On any other basis, all talk about good industrial relations is just that—talk. Unless foremen receive from the general foremen the same spirit and method of management they are expected to pursue with the workers, they will do their jobs with their tongues in their cheeks. How effective is that kind of procedure?

Good Industrial Relations Are By-Products of Good Leadership

In conclusion, therefore, the answer to industrial relations problems is the answer to all other problems of business—good leadership. Problems of labor relations are not automatically solved by the signing of labor agreements. Consistent practice of good management from the top down through every level of supervision is the only sure and permanent answer. The obligation upon those in top leadership positions, first to determine right policies, then to administer them in the way that builds understanding and releases initiative and creative effort is a tremendous one. It is the greatest and most intriguing challenge in life. As we rise to meet it, I believe we may achieve standards of accomplishment hitherto considered unattainable.



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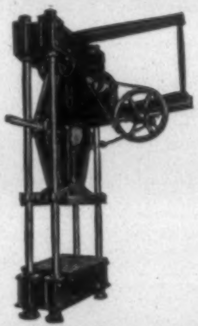

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Southern Sources of Supply

For Equipment, Parts, Material, Service

Following are the addresses of Southern plants, warehouses, offices, and representatives of manufacturers of textile equipment and supplies who advertise regularly in TEXTILE BULLETIN. We realize that operating executives are frequently in urgent need of information, service, equipment, parts and materials, and believe this guide will prove of real value to our subscribers.

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ASHWORTH BROS., Inc., Charlotte, N. C. Sou. Offices, 44-A

ATLANTA HARNESS & REED MFG. CO., Atlanta, Ga. Succeeded by Steel Heddle Mfg. Co., Atlanta Division. (See this company's listing.)

AUFFMORDT & CO., C. A., 2 Park Ave., New York City. Sou. Rep., S. L. Diggle, Jr., 522 Hawthorne Lane, Charlotte, N. C.

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BARBER-COLMAN CO., Rockford, Ill. Sou. Office, 31 W. McBee Ave., Greenville, S. C., J. H. Spencer, Mgr.

BORNE, SCRYMSER CO., 17 Battery Place, New York City. Sou. Mgr., H. L. Siever, P. O. Box 1169, Charlotte, N. C. Sales Reps., W. B. Uhler, 608 Palmetto St., Spartanburg, S. C.; R. C. Young, 1546 Stanford Place, Charlotte, N. C.; John Ferguson, 303 Hill St., LaGrange, Ga.

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CLINTON CO., Clinton, Iowa. Luther Knowles, Sou. Agt., Box 127, Phone 2-2486, Charlotte, N. C. Sou. Reps., Grady Gilbert, Box 342, Phone 1132, Concord, N. C.; Clinton Sales Co., Inc., Dana H. Alexander, 2 Morgan Bldg., Greenville, S. C ; Geo. B. Moore, Box 481, Phone 822, Spartanburg, S. C.; Boyce L. Estes, Box 325, Phone 469, LaGrange, Ga. Stocks carried at Carolina Transfer & Storage Co., Charlotte, N. C.; Consolidated Brokerage Co., Greenville, S. C.; Bonded Service Warehouse, Atlanta, Ga.; Farmers Bonded Warehouse, Roanoke Rapids, N. C.

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PROVIDENT LIFE & ACCIDENT INS. CO. (Group Accident and Health, and Welfare Plans Div.), Chattanooga, Tenn. Southeastern Div. Office, 203 Commercial Bldg., Gastonia, N. C.

THE PURE OIL CO., Industrial Sales Dept., Southeastern Division Office, 140 Spring St., S. W., Atlanta, Ga., O. T. Clark, Mgr.

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"Some of them were sitting in their muddy sheepskins on the slushy ground of the market. Their heads were on each other's shoulders. They were dozing in the sunshine. The rest stood patiently. They were mostly women, in shapeless, dirty coats, patched together out of rags and skins, their feet in moccasins or worn-down goloshes.

"Every now and then, as someone at the head of the line was given a parcel, they moved forward a few inches.

"I passed to the head of the line to see what it was they were standing for. It was not meat, not potatoes, not bread. It was cotton. The man in the white overalls with blue beret behind the counter of the booth held up a bale of the cheapest printed cotton.

" 'Three rubles a meter,' he said. And a woman in sheepskin nodded her head, said she would take four meters. It would make a summer dress.

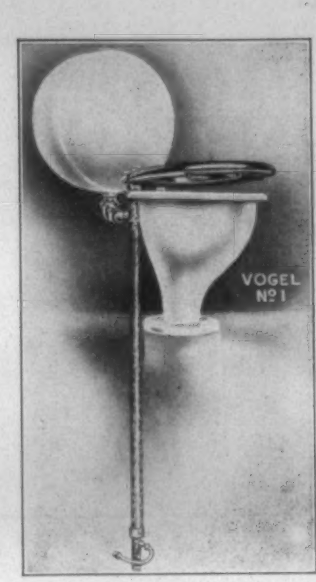
"Half a crown a yard! (A half crown is 62½ cents in American money.) Think of it!—five times the amount at which it is retailed in any other country. And they were standing in a line, for at half a crown a yard it was such a bargain."—*London Daily Express.*

G. E. First Quarter Sales and Net Profit Show Gain Over 1938

Sales billed by General Electric Company during the first quarter of 1939 amounted to $68,537,269, compared with $65,086,557 during the same quarter last year, an increase of 5%, President Gerard Swope announced to the stockholders at their annual meeting.

Report of General Electric Company for quarter ended March 31, 1939, shows net profit of $7,373,431 after depreciation, interest, federal income taxes, etc., equal to 26 cents a share on 28,784,457 shares of no-par common stock.

This compares with 7,075,739 or 25 cents a share in March quarter of previous year.



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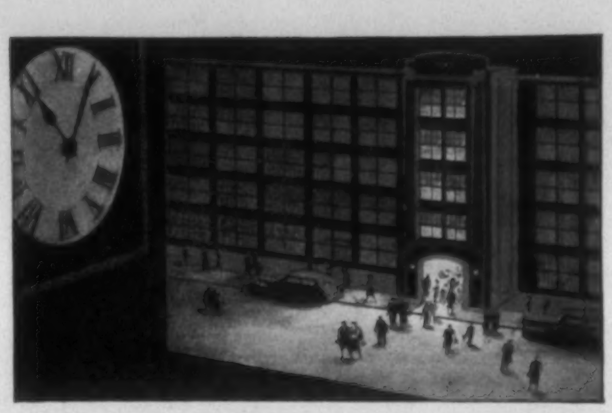

"We're glad to see our mill dark after the second shift!"

Concentrating production into two shifts is an economy entirely possible where equipment is maintained at high efficiency. If your rings have gotten worn and wavy, you can definitely increase production in your spinning and twisting departments. Install high-polish DIAMOND FINISH spinning rings, and our patented lubricated twister rings — for concentrated production!

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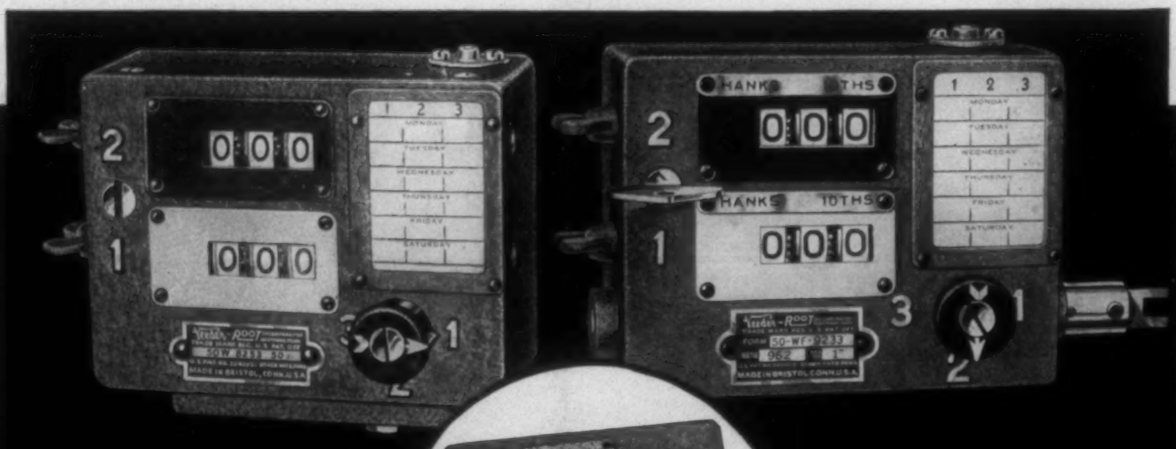
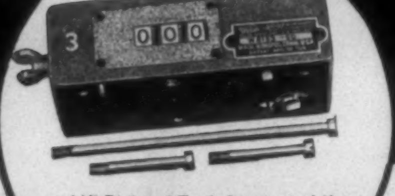
FOR ALL YOUR LOOMS AND FRAMES . . .

Veeder-ROOT 2-3 RESET PICK AND HANK COUNTERS





2-shift Pick and Hank Counters of the 2-3 Type can be converted right in the mill to 3-shift operation if needed... by the 3rd counting unit and 3 brass screws shown.

Every type of loom can be equipped with 2-3 Pick Counters, reset or non-reset, driven from either right or left side. These counters are furnished *complete,* with all parts needed for installation, including Veeder-Root Worm and Housing . . . Compression Clamps . . . and the patented 16-point Compression Clamp Drive now in use on over 100,000 looms. Counters may be converted in the mill from 2 to 3-shift operation if needed.

Likewise, all frames, speeders, slubbers, twisters, may be equipped with the 2-3 Hank Counter that includes all the basic design features of the 2-3 Pick Counter . . . plus the *exclusive* new Right Angle Drive. This is furnished with new counters for installation in any of three positions—front, back, or down—on either right or left side. Get the best Pick and Hank Counters money can buy . . . also any other types of counters you require . . . from one source, in one transaction. *Get them from Veeder-Root* . . . write for information and prices.

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